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Report No.: 0394/13/ED/0380A

## Monthly EM&A Report

July 2019

**Client :** China International Water & Electric Corporation  
**Project:** Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel  
**Contract No.:** CV/2013/04  
**Report No.:** 0394/13/ED/0380A

Project Proponent:

Civil Engineering & Development Department  
101 Princess Margaret Road,  
Homantin,  
Kowloon, Hong Kong.

Prepared by: Wingo So

Reviewed by: Cyrus Lai

Certified by:

A handwritten signature in black ink, appearing to be "Colin Yung", written over a horizontal line.

Colin Yung  
Environmental Team Leader for  
Fugro Technical Services Limited



Ref.: CEDDWKTBEM00\_0\_0379L.19.docx

13 August 2019  
By Post

Mott MacDonald Hong Kong Ltd.  
3/F Mapletree Bay Point,  
348 Kwun Tong Road  
Kwun Tong, Kowloon

Attention: Mr. C M Howley

Dear Mr. Howley,

**Re: Agreement No. CE 63/2008 (CE)  
Dredging Works in Kwai Tsing Container Basin and its Approach Channel  
– Investigation, Design and Construction)**

**Contract No. CV/2013/04  
Dredging Works in Kwai Tsing Container Basin and its Approach Channel  
Verification of Monthly EM&A Report for July 2019**

Reference is made to the Environmental Team's submission of the Monthly Environmental Monitoring & Audit Report for July 2019 (ET's Report No. 0394/13/ED/0380A) received by e-mail on 13 August 2019.

We write to verify the captioned report in accordance with Condition 5.4 of EP-426/2011/A.

Thank you very much for your kind attention and please do not hesitate to contact our Mr. Harris Wong or the undersigned should you have any queries.

Yours faithfully,  
For and on behalf of  
Ramboll Hong Kong Limited

Y H Hui  
Independent Environmental Checker

Cc:	MMHK	Ms. Sunny Zhao	(by post and email)
	Fugro	Mr. Colin Yung	(by email)
	CIWE	Mr. K.O. Leung	(by email)

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**EXECUTIVE SUMMARY**

- i. This is the Fifty First Monthly Environmental Monitoring Audit (EM&A) Monthly Report – July 2019 for Contract No. CV/2013/04 – Dredging Works in Kwai Tsing and its Approach Channel (Agreement No. CE63/2008 – Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel). The dredging works commenced on 23 April 2014. This report presents the environmental monitoring and audit works conducted from 23 June 2019 to 22 July 2019.
- ii. Construction Activities for the Reporting Period  
During this reporting period, the principal work activities included:
  - Preparation Works of Dredging at Portion A / Zone 2B1, 2B2 and 2C1 in EP
- iii. Water Quality Monitoring  
Routine impact water quality monitoring at 9 designated monitoring stations namely C1A, C2A, G2, SR2, SR3, SR4, SR5, SR12, SR13 were conducted during the reporting period. Exceedances of NH3-N (in-situ & lab), UIA (in-situ & lab) and TIN (in-situ & lab) were recorded at various monitoring stations, detail of exceedance are summarized in **Table I and II**. However, investigation indicated these exceedances were not related to the Project works.

**Table I Summary of Water Quality Exceedances – Routine Impact Monitoring (In-situ)**

Station	Exceedance Level	DO (S&M)		DO (B)		Turbidity		NH3-N		UIA		TIN		Total	
		E	F	E	F	E	F	E	F	E	F	E	F	E	F
SR2	Action	0	0	0	0	0	0	0	0	0	0	-	-	0	0
	Limit	0	0	0	0	0	0	3	3	1	1	-	-	4	4
SR3	Action	0	0	0	0	0	0	0	0	0	0	-	-	0	0
	Limit	0	0	0	0	0	0	3	3	1	2	-	-	4	5
SR4	Action	0	0	0	0	0	0	0	0	0	0	-	-	0	0
	Limit	0	0	0	0	0	0	0	0	1	2	-	-	1	2
SR5	Action	0	0	0	0	0	0	-	-	-	-	0	0	0	0
	Limit	0	0	0	0	0	0	-	-	-	-	12	12	12	12
SR12	Action	0	0	0	0	0	0	0	0	0	0	-	-	0	0
	Limit	0	0	0	0	0	0	1	1	1	1	-	-	2	2
SR13	Action	0	0	0	0	0	0	-	-	-	-	-	-	0	0
	Limit	0	0	0	0	0	0	-	-	-	-	-	-	0	0
Total	Action	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Limit	0	0	0	0	0	0	7	7	4	6	12	12	48	



**Table II Summary of Water Quality Exceedances – Routine Impact Monitoring (Laboratory Analysis)**

Station	Exceedance Level	Suspended Solids		BOD <sub>5</sub>		<i>E. coli</i>		NH <sub>3</sub> -N		UIA		Synthetic Detergent		TIN		Total	
		E	F	E	F	E	F	E	F	E	F	E	F	E	F	E	F
SR2	Action	0	0	-	-	-	-	0	0	0	0	-	-	-	-	0	0
	Limit	0	0	-	-	-	-	3	3	1	1	-	-	-	-	4	4
SR3	Action	0	0	-	-	-	-	0	0	0	0	-	-	-	-	0	0
	Limit	0	0	-	-	-	-	3	3	1	1	-	-	-	-	4	4
SR4	Action	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0
	Limit	0	0	0	0	0	0	0	0	1	2	0	0	-	-	1	2
SR5	Action	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0
	Limit	0	0	-	-	-	-	-	-	-	-	-	-	12	12	12	12
SR12	Action	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0
	Limit	0	0	0	0	0	0	1	1	1	1	0	0	-	-	2	2
SR13	Action	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	Limit	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
Total	Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	7	7	4	5	0	0	12	12	47	47

iv. Among the 9 monitoring stations, supplementary 24-hr water quality monitoring was also conducted at 4 of the stations, which are SR4, SR5, SR12 and SR13. No exceedance was recorded in the reporting month. Number of exceedances recorded in the reporting month at each impact station is summarized in **Table III**.

**Table III Summary of the Exceedances Recorded in Reporting Month – 24-hr Monitoring**

Station	Exceedance Level	Turbidity	DO	NH <sub>3</sub> -N	Total
SR4	Action	0	0	0	0
	Limit	0	0	0	0
SR5	Action	0	0	-	0
	Limit	0	0	-	0
SR12	Action	0	0	0	0
	Limit	0	0	0	0
SR13	Action	0	0	-	0
	Limit	0	0	-	0
Total	Action	0	0	0	0
	Limit	0	0	0	0

v. Waste Management

There was no inert or non-inert C&D material related to dredging works. No general refuse were disposed off site in the reporting month.

vi. Non-Compliance, Complaints, Notifications of Summons and Successful Prosecutions  
No complaint, notification of prosecutions or summons was received in the reporting period.

vii. Site Inspections and Audit

The Environmental Team conducted 4 site inspections in the reporting period. No particular observation was recorded in the reporting month except oil stain was found on the deck. The Contractor was reminded to wash the deck regularly and ensure no leakage of oil into the sea. The waste shall be treated and disposed properly as chemical waste.

According to Contractor, no archaeological deposit was found during reporting period.

viii. Compliance with Specific EP conditions

Implementation of contractor's mitigation for the associated marine construction works was checked. It was concluded that the marine works are conducted orderly in compliance with the EP requirements on site mitigation measures in general.

ix. Construction Activities for the Coming Reporting Period

During the coming reporting period, the principal work activities included:

- Preparation Works of Dredging at Portion A / Zone 2B1, 2B2 and 2C1 in EP
- Dredging at Portion A/ Zone 2B1, 2B2 and 2C1 in EP

Future Key Issues include:

- Regular inspection on silt curtain deployment
- Regular inspection on silt screen deployment
- Implementation of EM&A Programme
- Maintain dredging below allowable dredging rate in EP.
- Cleaning of excess material from the decks and exposed fittings of barges and dredgers before the vessel is moved.
- Barge loading shall be monitored to ensure material is not lost during transportation.
- Conditions in dumping permit shall be followed strictly.

## 1. INTRODUCTION

### 1.1 Background

- 1.1.1 The Project objective is to dredge approximately 4.0 million cubic metres of sediment from the seabed of Kwai Tsing Container Basin, as well as portions of Northern Fairway and Western Fairway, to provide sufficient depth of container basin and approach channel to Kwai Tsing Container Terminal (KTCT) for the safe navigation of Ultra Large Container Ships (ULCS).
- 1.1.2 The environmental monitoring and audit works of this Project is governed by Environmental Permit (EP) No. EP-426/2011/A, EM&A Manual (AEIAR-156/2010) and EM&A TIN (EPD Letter Ref: (34) in Ax(1) to EP2/N3/C/57Pt.7)).
- 1.1.3 The project proponent was the Civil Engineering & Development Department, HKSAR (CEDD). The Project General Layout is shown in **Figure 1**.
- 1.1.4 Mott MacDonald Hong Kong Ltd. (MMHK) was commissioned by CEDD as the Engineer for the Project. Ramboll Hong Kong Limited (RHK) was employed as the Independent Environmental Checker (IEC) in the Project.
- 1.1.5 China International Water & Electric Corporation Limited (CIWE) was appointed as the main contractor for the dredging works.
- 1.1.6 Fugro Technical Services Limited (FTS) was appointed as the Environmental Team (ET) to implement the Environmental Monitoring and Audit (EM&A) programme for the Project.
- 1.1.7 The construction phase of the Project under the EP was commenced on 23 April 2014. The impact EM&A programme of the Project commenced on 23 April 2014.

### 1.2 Purpose of the Report

- 1.2.1 This Fifty Monthly EM&A Report is prepared by FTS. This report presents a summary of the environmental monitoring and audit works, list of activities and mitigation measures proposed by the ET for the Project in 23 June 2019 to 22 July 2019.

### 1.3 Structure of the Report

- 1.3.1 The structure of this report is as follows:

- Section 1: Introduction, including background, purpose and structure of the report
- Section 2: Basic Project Information – summaries background and scope of the Contract, site description, project organization and contract details, construction programme, the construction works undertaken and the status of Environmental Permits/Licenses during the reporting period.
- Section 3: Routine Impact Water Quality Monitoring – summaries the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequency,

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- monitoring locations, Action and Limit Levels, monitoring results and Event / Action Plans.
- Section 4: 24-hr Water Quality Monitoring – summaries the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequency, monitoring locations, Action and Limit Levels, monitoring results and Event / Action Plans.
- Section 5: Environmental Site Inspection – summaries the audit findings of the weekly site inspections undertaken within the reporting period.
- Section 6: Exceedance of the environmental parameters – summaries any monitoring exceedance within the reporting period.
- Section 7: Non-Compliance, Complaints, notifications of summons and Prosecution – summaries any environmental complaints, environmental summons and successful prosecutions within the reporting period.
- Section 8: Conclusions and Recommendation



**2. BASIC PROJECT INFORMATION****2.1 Project Organizations**

2.1.1 The Project Organization structure is shown in **Appendix A**. The key personnel contact names and numbers are summarized in **Table 2.1**.

**Table 2.1 Key Personnel Contact of the Contract**

Party	Position	Name	Telephone	Fax
Engineer's Representative (MMHK)	Resident Engineer	Mr. Jason Chan	2585 8595	2827 1823
	Project Engineer	Ms. Sunny Zhao	2828 5908	2827 1823
Independent Environmental Checker (RHK)	Independent Environmental Checker	Mr. YH Hui	3465 2888	3465 2899
Contractor (CIW&E)	Site Agent	Mr. KO Leung	2419 6008	2419 6218
Environmental Team (FTS)	Environmental Team Leader	Mr. Colin Yung	3565 4114	3565 4160

**2.2 Construction Programme**

2.2.1 The construction phase of the Project under the EP commenced on 23 April 2014.

2.2.2 The construction programme of the Project is shown in **Appendix B**.

2.2.3 The environmental mitigation measures implementation schedule is presented in **Appendix J**.

**2.3 Works undertaken during the month**

During this reporting period, the principal work activities included:

- Preparation Works of Dredging at Portion A / Zone 2B1, 2B2 and 2C1 in EP

**2.4 Status of Environmental Licences, Notification and Permits**

2.4.1 A summary of the relevant permits, licences and/or notifications on environmental protection for this Contract is presented in **Table 2.2**.

**Table 2.2 Status of Environmental Licenses, Notification and Permits**

Permit / Direction / License	Ref No	Valid From	Valid Till
Notification pursuant to Air Pollution (Control Dust) Regulation	Not Required		
Construction Noise Permit Portion A 0000-2400 hours on general holidays (including Sundays); 0000-0700 and 1900-2400 hours on any day not being a public holiday (including Sunday) but note Condition 3.d.1 below for the hours within which the use of the above listed mechanical powered equipment is allowed.	GW-RW0126-19	12/4/2019	11/10/2019
Waste Producer License	5213-320-C3907-01	27/10/2014	Upon Completion

Note: No dredging work was carried out and no marine sediment was disposed in the reporting month

**2.5 Summary of EM&A Programme Requirements**

2.5.1 The EM&A programme requires environmental monitoring for water quality and environmental site inspections for air quality, noise, water quality, waste management, landscape and visual impact. The EM&A requirements for each parameter described in the following sections include:

- All monitoring parameters;
- Monitoring schedules for the reporting month and forthcoming month;
- Action and Limit levels for all environmental parameters;
- Event / Action Plan;
- Environmental mitigation measures, as recommended in the Project EIA reports; and
- Environmental requirement in contract documents.

**2.6 Construction Activities for the Coming Reporting Period**

During the coming reporting period, the principal work activities included:

- Preparation Works of Dredging at Portion A / Zone 2B1, 2B2 and 2C1 in EP
- Dredging at Portion A/ Zone 2B1, 2B2 and 2C1 in EP

Future Key Issues include:

- Regular inspection on silt curtain deployment
- Regular inspection on silt screen deployment
- Implementation of EM&A Programme
- Maintain dredging below allowable dredging rate in EP.
- Cleaning of excess material from the decks and exposed fittings of barges and dredgers before the vessel is moved.

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- Barge loading shall be monitored to ensure material is not lost during transportation.
- Conditions in dumping permit shall be followed strictly.

### 3. ROUTINE IMPACT WATER QUALITY MONITORING

#### 3.1 Monitoring Methodology

3.1.1 In-situ measurements and water samples were taken at 3 depths of the water column for each monitoring location, i.e. 1m below the surface, mid-depth, and 1m above the seabed, except where the water depth was less than 6m in which case the mid-depth was omitted and for locations where the water depth was less than 3m only the mid-depth level was monitored.

##### *In-Situ Measurement*

3.1.2 Prior to each monitoring day, wet bulb calibration was performed for the DO probes. Zero check in distilled water and calibration with a solution of known NTU were carried out for the turbidity probes. Three-point calibration of pH probes was completed each monitoring day.

3.1.3 At each sampling depth, two consecutive measurements were taken for turbidity, pH, DO, temperature, salinity, and ammonia. Separate deployment of the monitoring instruments was conducted for the consecutive measurements. When the difference between the two measurements for DO or turbidity was higher than 25% of the value of the first reading, the reading would be discarded and further readings would be taken. Three replicates of TIN measurement were performed for each depth at each monitoring location.

##### *Laboratory Analysis*

3.1.4 Duplicate water samples were collected at each sampling depth for laboratory measurement of SS, BOD<sub>5</sub> & synthetic detergent, ammonia, and *E.coli* at the required monitoring stations shown in **Table 3.4**. Three replicates were taken for TIN measurements at the specified locations. Samples were stored in high density polythene bottles, packed in ice (cooled to 4°C without being frozen), and delivered to the laboratory on the same day of collection for analysis.

3.1.5 ALS Technichem (HK) Pty Ltd (HOKLAS Reg. No. 066), was appointed to be the laboratory for analysis of water samples in the impact monitoring project. The methods adopted by the laboratories and the reporting limits are detailed in **Table 3.1**.

**Table 3.1** Laboratory Measurement/Analysis Methods and Reporting Limits

Analysis Description	Method	Reporting limits
Suspended Solid	APHA 2540D	1 mg/L
Ammonia	APHA 4500NH3:B&C	0.01 mg/L
Nitrite	APHA 4500NO2:B&H	0.01 mg/L
Nitrate	APHA 4500NO3:I	0.01 mg/L
Total Inorganic Nitrogen	By Calculation	0.02 mg/L
5-day Biochemical Oxygen Demand	APHA 5210B	1 mg/L
Synthetic Detergent	As Methylene Blue Active Substance	0.5 mg/L

Analysis Description	Method	Reporting limits
<i>E. coli</i>	DoE Section 7.8 & 7.9 plus in situ urease test	1 cfu/100mL

**3.2 Monitoring Equipment**

3.2.1 Equipment used for in-situ measurement and water sampling during impact water quality monitoring is summarised in **Table 3.2**. The equipment is in compliance with the requirements set out in the EM&A Manual. All in-situ monitoring instruments were calibrated by a HOKLAS-accredited laboratory or by standard solutions. Calibration of temperature, DO, salinity, pH and turbidity is conducted in three month interval, while QA/QC for in-situ ammonia measurement is carried out at 1-month interval. Calibration certificates for the water quality monitoring equipment are attached in **Appendix D**.

**Table 3.2** Water Quality Monitoring and Sampling Equipment

Parameter	Equipment	Model	Range	Equipment Accuracy
Nitrate	Photometer	<ul style="list-style-type: none"> <li>HACH DR900, and</li> <li>Nitrate Reagent Set (Cadmium Reduction Method)</li> </ul>	NO <sub>3</sub> : 0.01 to 0.50 mg/L	±0.5%
Ammonia, Nitrite	Photometer	<ul style="list-style-type: none"> <li>Lovibond MD600 Maxi Direct, and</li> <li>Ammonia Reagent Set (Indophenol blue / Salicylate);</li> <li>Nitrite Reagent Set (N-(1-Naphthyl)-ethylenediamine)</li> </ul>	NH <sub>3</sub> -N: 0.02 to 1mg/L; 1 to 50mg/L NO <sub>2</sub> : 0.01 to 0.5mg/L	±2%
Temperature, Dissolved Oxygen, salinity, pH, Turbidity	Water Quality Monitoring Device	YSI 6920V2-2-M Sonde	Temp: -5 to 50°C DO: 0-50mg/L DO%: 0-500% Sal: 0 to 70 ppt pH: 0 to 14 pH units Turb: 0-1000NTU	Temp: ±0.15°C DO: ±0.1mg/L or 1% (whichever greater) for 0-20mg/L; ±15% for 20-50mg/L Sal: ±1% or 0.1ppt (whichever greater) pH: ±0.2 units Turb: ±2% or 0.3NTU (whichever greater)
		Xylem EXO 3 Sonde	Temp: -5 to 50°C DO: 0-50mg/L DO%: 0-500% Sal: 0 to 175 ppt (By conversion of conductivity) pH: 0 to 14 pH units Turb: 0-4000NTU (FNU)	Temp: ±0.01°C (for -5-35°C) DO: ±0.1mg/L or 1% (whichever greater) for 0-20mg/L; ±15% for 20-50mg/L Sal: ±0.5% or 0.012ppt (for 0-72.7 ppt) (By conversion of conductivity) (whichever greater) pH: ±0.2 units Turb: ±2% or 0.3NTU (FNU) (whichever greater)

Parameter	Equipment	Model	Range	Equipment Accuracy
Water Sampling	Water Sampler	Aquatic Research Transparent PC Horizontal Water Sampler 2.2L / 3L / 5L	NA	NA
Positioning	Global Positioning System (GPS)	Garmin eTrex	NA	±3m
		Garmin GPS72	NA	±3m
Water Depth	Echo Sounder	Garmin ECHO 100	0.6 to 91 m	0.1 m

### 3.3 Monitoring Parameters

3.3.1 The monitoring parameters and frequency for both in-situ measurement and laboratory analysis are summarised in **Table 3.3**. Parameters for each monitoring station are specified in **Table 3.4**.

**Table 3.3** Monitoring Parameters and Frequency

Parameters	Monitoring Frequency
<u>In-situ Measurement</u> Turbidity (in NTU), pH, Dissolved Oxygen (in mg/L and %), Temperature (in °C), Salinity (in ppt), <sup>1</sup> Ammonia-N (in mg/L-N and UIA); <sup>2</sup> TIN: Ammonia-N (in mg/L), Nitrite (in mg/L), Nitrate (in mg/L)	3 days per week, at mid-flood and mid-ebb tides (except <sup>3</sup> detergent which shall be taken one day per month, at mid-flood and mid-ebb)
<u>Laboratory Analysis</u> <sup>1</sup> Ammonia-N (in mg/L-N and UIA), Suspended Solids (SS), <sup>3</sup> BOD <sub>5</sub> , <sup>3</sup> <i>E.coli</i> , <sup>3</sup> Synthetic Detergent; <sup>2</sup> TIN: Ammonia-N (in mg/L), Nitrite (in mg/L), Nitrate (in mg/L)	36 hours interval was allowed between subsequent sets of measurement.

Notes:

- Ammonia measurements and samples were taken at SR2, SR3, SR4, SR12, C1A, C2A only; UIA: In-situ unionized ammonia was calculated from in-situ measurement of NH<sub>3</sub>-N, temperature, pH and salinity; Laboratory determined unionized ammonia was calculated from analysed NH<sub>3</sub>-N from water samples and in-situ measurement of temperature, pH and salinity;
- Total Inorganic Nitrogen (TIN) measurements and samples were taken at SR5, G2, C1A and C2A only;
- BOD<sub>5</sub>, *E.coli* and Synthetic Detergent samples were taken at SR4, SR12, C1A, C2A only.

**Table 3.4 Water Quality Monitoring Parameters**

ID	In-situ Measurement							Laboratory Analysis					
	pH	Temperature	Salinity	Turbidity	Dissolved Oxygen / Dissolved Oxygen%	NH <sub>3</sub> -N / UIA	TIN (NH <sub>3</sub> -N, NO <sub>2</sub> & NO <sub>3</sub> )	Suspended Solids	BOD <sub>5</sub>	E. coli	NH <sub>3</sub> -N / UIA	Synthetic Detergent	TIN (NH <sub>3</sub> -N, NO <sub>2</sub> & NO <sub>3</sub> )
SR2	○	○	○	○	○	○		○			○		
SR3	○	○	○	○	○	○		○			○		
SR4	○	○	○	○	○	○		○	○	○	○	○	
SR5	○	○	○	○	○		○	○					○
SR12	○	○	○	○	○	○		○	○	○	○	○	
SR13	○	○	○	○	○			○					
G2	○	○	○	○	○		○	○					○
C1A	○	○	○	○	○	○	○	○	○	○	○	○	○
C2A	○	○	○	○	○	○	○	○	○	○	○	○	○

Note:

1. UIA: In-situ unionized ammonia was calculated from in-situ measurement of NH<sub>3</sub>-N, temperature, pH and salinity; laboratory determined unionized ammonia was calculated from analysed NH<sub>3</sub>-N from water samples taken and in-situ measurement of temperature, pH and salinity.

### 3.4 Monitoring Locations

- 3.4.1 Referring to the Proposal for Temporary Suspension of Impact Water Quality Monitoring (0394\_13\_ED\_0326F) which was submitted to EPD in August 2016 with no objection was received from EPD; removal of routine water quality monitoring stations at SR1 was effective on 24 December 2016.
- 3.4.2 Referring to the *Proposal on Removal of Some Water Quality Monitoring Stations After Resumption of Marine Construction Works (Dredging Works and Marine Works of the Northern Part of Kwai Tsing Container Basin Only)* (0394\_13\_ED\_0332I) which has been submitted to EPD and relevant parties in December 2016 with no objection, removal of routine water quality monitoring stations at SR6, SR7, SR8, SR9, SR10 and SR11 was effective from 23 January 2017. Due to removal of some sensitive receivers in routine water quality monitoring, gradient stations G3, G5 and G6 were also be removed and gradient stations G1 and G4 replaced the previous control stations C1, C2 and C3 as C1A and C2A with reference to the approved proposal (0394\_13\_ED\_0332I) which was effective from 23 January 2017.
- 3.4.3 Impact water quality monitoring was conducted at 9 locations, including 6 sensitive receivers (SR2, SR3, SR4, SR5, SR12, SR13), 1 gradient station (G2) and 2 control stations (C1A, C2A), whose detailed information is summarised in **Table 3.5**. The locations of the stations are also shown in **Figure 2**.



**Table 3.5** Locations of Water Quality Monitoring Stations

Water Monitoring Station		Easting	Northing
SR2	Casam, Gazetted Beach	825723.225	825334.784
SR3	Approach, Gazetted Beach	826960.152	825260.726
SR4	Tsuen Wan, WSD Flushing Water Intake	829270.482	825382.994
SR5	Ma Wan, Fish Culture Zone	823758.839	823575.934
SR12	Tsing Yi, WSD Flushing Water Intake	829599.152	823262.269
SR13	EMSD Cooling Water Intake for Kwai Chung Hospital	831397.450	822002.433
G2	Gradient Station	825979.792	824683.158
C1A	Control Station	820626.195	822834.323
C2A	Control Station	830423.070	819431.722

### 3.5 Monitoring date, time frequency and duration

3.5.1 In the reporting period, impact water quality monitoring was carried out 3 days per week, at mid-flood and mid-ebb tides, from 23 June 2019 to 22 July 2019. Detailed impact monitoring schedule for the reporting month and the coming month is included in **Appendix E**.

### 3.6 Weather conditions

3.6.1 The weather condition during the impact monitoring is provided in **Appendix L**.

### 3.7 Results and Observations

3.7.1 Impact water quality monitoring was conducted at all designated monitoring stations in the reporting month. Impact water quality monitoring results and graphical presentations are provided in **Appendix F**.

3.7.2 During the monitoring period, some adverse weather conditions, including Rainstorm Warning Signal and Thunderstorm Warning was reported. Heavy marine traffic (not associated with the Project) was commonly observed nearby the Project site and its vicinity, that the propeller wash from vessels could lead to potential disturbance of seabed sediment and affect the water quality. The above conditions may affect monitoring results. Summary of weather condition is provided in **Appendix L**.

3.7.3 Number of exceedances recorded in the reporting month at each impact station is summarized in **Table 3.6** and **3.7**.



**Table 3.6 Summary of Water Quality Exceedance (In-situ Measurement)**

Station	Exceedance Level	DO (S&M)		DO (B)		Turbidity		NH3-N		UIA		TIN		Total	
		E	F	E	F	E	F	E	F	E	F	E	F	E	F
SR2	Action	0	0	0	0	0	0	0	0	0	0	-	-	0	0
	Limit	0	0	0	0	0	0	3	3	1	1	-	-	4	4
SR3	Action	0	0	0	0	0	0	0	0	0	0	-	-	0	0
	Limit	0	0	0	0	0	0	3	3	1	2	-	-	4	5
SR4	Action	0	0	0	0	0	0	0	0	0	0	-	-	0	0
	Limit	0	0	0	0	0	0	0	0	1	2	-	-	1	2
SR5	Action	0	0	0	0	0	0	-	-	-	-	0	0	0	0
	Limit	0	0	0	0	0	0	-	-	-	-	12	12	12	12
SR12	Action	0	0	0	0	0	0	0	0	0	0	-	-	0	0
	Limit	0	0	0	0	0	0	1	1	1	1	-	-	2	2
SR13	Action	0	0	0	0	0	0	-	-	-	-	-	-	0	0
	Limit	0	0	0	0	0	0	-	-	-	-	-	-	0	0
Total	Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	7	7	4	6	12	12	48	

**Table 3.7 Summary of Water Quality Exceedance (Laboratory Analysis)**

Station	Exceedance Level	Suspended Solids		BOD <sub>5</sub>		<i>E. coli</i>		NH <sub>3</sub> -N		UIA		Synthetic Detergent		TIN		Total	
		E	F	E	F	E	F	E	F	E	F	E	F	E	F	E	F
SR2	Action	0	0	-	-	-	-	0	0	0	0	-	-	-	-	0	0
	Limit	0	0	-	-	-	-	3	3	1	1	-	-	-	-	4	4
SR3	Action	0	0	-	-	-	-	0	0	0	0	-	-	-	-	0	0
	Limit	0	0	-	-	-	-	3	3	1	1	-	-	-	-	4	4
SR4	Action	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0
	Limit	0	0	0	0	0	0	0	0	1	2	0	0	-	-	1	2
SR5	Action	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0
	Limit	0	0	-	-	-	-	-	-	-	-	-	-	12	12	12	12
SR12	Action	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0
	Limit	0	0	0	0	0	0	1	1	1	1	0	0	-	-	2	2
SR13	Action	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
	Limit	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
Total	Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	7	7	4	5	0	0	12	12	47	

3.7.4 During the reporting period, 14 LL exceedances for NH<sub>3</sub>-N (in-situ), 10 LL exceedances for UIA (in-situ), 24 LL exceedances for TIN (in-situ), 14 LL exceedances for NH<sub>3</sub>-N (lab), 9 LL exceedances for UIA (lab) and 24 LL exceedances for TIN (lab) were recorded.

3.7.5 A number of exceedances were recorded in the reporting month, however, based on the finding from the investigation on the recorded cases of exceedances, the cause was found not related to the project. The exceedances may be caused by influences in the vicinity of the station or changes of the ambient conditions.

3.7.6 The details of Notification of Exceedance can be referred to **Appendix I**.

### 3.8 Action and Limit Levels

3.8.1 Referring to the ER Letter ref. (CV/2013/04)/M45/400/1247 dated 19 March 2015, a Revised Baseline Water Quality Monitoring Test Methodology – Review of Action and Limit Levels has been submitted to EPD by ER in March 2015. The Action and Limit Level for the wet season (April – October) was effected and applied to the water quality monitoring data from 1 April 2015. The Action and Limit Level is given in **Appendix C**.

### 3.9 Event and Action Plan

3.9.1 The Event and Action Plan is given in **Appendix H**.

## 4. 24-HR WATER QUALITY MONITORING

### 4.1 Monitoring Methodology

4.1.1 The monitoring probes are set up around the fish rack at the Fish Culture Zone and seawater intake point. Small buoys are placed on the sea surface to indicate the locations of the monitoring probes. Data loggers and wireless modems are placed on a framework or covered places, such as storage house on the fish rack.

4.1.2 The 24 hours water quality monitoring is performed at a depth of 1 to 2m below the water surface. The dissolved oxygen, temperature and turbidity data are logged at 5 minutes interval by the multi-probe, while ammonia data are logged at 20 minutes interval and data are transmitted via the wireless transmission system to the designated computers with the installation of automatic checking programme to detect exceedances at the offices of ET. In case where an action/limit level exceedance is evidenced (a continuous exceedance for any 30 minutes i.e. 6 consecutive monitoring data exceedances for DO, temperature and turbidity; and 3 consecutive exceedances of ammonia data), an email notification will be sent automatically to ET, Contractor, ER, EPD, AFCD and WSD to alert the event for further investigation.

### 4.2 Monitoring Equipment

4.2.1 The following equipment and facilities will be used for the monitoring of water quality impacts:

#### Dissolved Oxygen, Turbidity and Temperature Measuring Equipment

A multi probe meter measuring dissolved oxygen, temperature and turbidity is set up at the 24 hours monitoring stations

- A DO level in the range of 0-20 mg/L and 0-200% saturation;
- A temperature of between 0 and 45 degree Celsius;
- A turbidity of between 0-1000NTU

The DO equipment is equipped with built-in salinity compensation.

#### Ammonia Measuring Equipment

The ammonia measuring equipment is used to monitor seawater ammonia level at WSD flushing water intake on a 24 hours a days 7 days a week during works basis.

#### Data Acquisition System

The data acquisition system is used to log water quality data at 5 minutes interval by the multi-probe and at 20 min interval by the ammonia sensor. Data will be transmitted via the wireless transmission system to the designated computers at ET office.

**Table 4.1** lists out the detail of monitoring equipment.

**Table 4.1 24 Hours Water Quality Monitoring Equipment**

Parameter	Equipment	Model	Range	Equipment Accuracy
Temperature, Dissolved Oxygen, Turbidity	Water Quality Monitoring Device	•YSI 6920V2-2-M Sonde	Temp: -5 to 50°C DO: 0-50mg/L DO%: 0-500% Turb: 0-1000NTU	<ul style="list-style-type: none"> <li>▪Temp: ±0.15°C</li> <li>▪DO: ±0.1mg/L or 1% (whichever greater) for 0-20mg/L; ±15% for 20-50mg/L</li> <li>▪Turb: ±2% or 0.3NTU (whichever greater)</li> </ul>
		•Xylem EXO 3 Sonde	Temp: -5 to 50°C DO: 0-50mg/L DO%: 0-500% Turb: 0-4000NTU (FNU)	<ul style="list-style-type: none"> <li>Temp: ±0.01°C (for -5-35°C)</li> <li>DO: ±0.1mg/L or 1% (whichever greater) for 0-20mg/L; ±15% for 20-50mg/L</li> <li>▪Turb: ±2% or 0.3NTU (FNU) (whichever greater)</li> </ul>
Data Acquisition System	Data Logger	Campbell CR200	NA	NA
	Data Logger	Campbell CR800	NA	NA
	Data Transmitter	NXN GT-511	NA	NA
Ammonia	Photometric Analyzer	Systea S.p.A. Micromac 1000 Ammonia Reagent Set: OPA	N-NH <sub>3</sub> : 0-2mg/L	N-NH <sub>3</sub> : <0.01mg/L

**4.2.2 Equipment Calibration**

In-situ monitoring instruments are checked, calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme before use, and subsequently re-calibrated at 3 months intervals throughout the water quality monitoring programme.

The monitoring equipment, monitoring probes are cleaned and checked twice a week.

Equipment calibration records are in **Appendix D**.

**4.3 Monitoring Parameters**

4.3.1 Dissolved oxygen, temperature and turbidity are recorded every 5 minutes, 24 hours a day 7 days a week during dredging works.

4.3.2 In-situ NH<sub>3</sub>-N at WSD Flushing Water Intake are measured every 20 minutes, 24 hours a day 7 days a week during works.

4.3.3 The water quality parameters measured at particular locations are shown in **Table 4.2**.

**Table 4.2 24-hr Water Quality Monitoring Parameters**

ID	Description	Parameters				
		Temperature	Turbidity	DO (mg/L)	DO%	NH <sub>3</sub> -N
SR4	Tsuen Wan, WSD Flushing Water Intake	○	○	○	○	○
SR5	Ma Wan, Fish Culture Zone	○	○	○	○	
SR12	Tsing Yi, WSD Flushing Water Intake	○	○	○	○	○
SR13	EMSD Cooling Water Intake for Kwai Chung Hospital	○	○	○	○	

#### 4.4 Monitoring Locations

Referring to the *Proposal on Removal of Some Water Quality Monitoring Stations After Resumption of Marine Construction Works (Dredging Works and Marine Works of the Northern Part of Kwai Tsing Container Basin Only)* (0394\_13\_ED\_0332I) which has been submitted to EPD and relevant parties in December 2016 with no objection, removal of 24 hour monitoring stations at SR9, SR10 and SR11 was effective from 23 January 2017. The setups of 24 hour monitoring stations at SR9, SR10 and SR11 were removed on 7 February 2017. The 24 hours water quality monitoring works are performed at the following locations (**Table 4.3**).

**Table 4.3 Location of Water Quality Monitoring Station**

Water Monitoring Station		Easting	Northing
SR4	Tsuen Wan, WSD Flushing Water Intake	829270.482	825382.994
SR5	Ma Wan, Fish Culture Zone	823758.839	823575.934
SR12	Tsing Yi, WSD Flushing Water Intake	829599.152	823262.269
SR13	EMSD Cooling Water Intake for Kwai Chung Hospital	831397.450	822002.433

Revisions on monitoring locations were proposed in previous submission (Report No. Ref: 0394/13/ED/0103 – WATER QUALITY MONITORING LOCATION) and were agreed among AFCD, EMSD, WSD and EPD.

#### 4.5 Results and Observations

4.5.1 24-hr water quality monitoring was conducted at all designated monitoring stations in the reporting month. Results are provided in **Appendix G**.

4.5.2 During the monitoring period, some adverse weather conditions, including Rainstorm Warning Signal and Thunderstorm Warning was reported. Heavy marine traffic (not associated with the Project) was commonly observed nearby the Project site and its vicinity, that the propeller wash from vessels could lead to potential disturbance of seabed sediment and affect the water

quality. The above conditions may affect monitoring results. Furthermore, the fish culturing or other activities occurring on the fish rack may cause adverse impact on the receiving water. Summary of weather conditions is provided in **Appendix L**.

4.5.3 Number of exceedances recorded in the reporting month at each impact station is summarized in **Table 4.4**.

**Table 4.4 Summary of Water Quality Exceedance (24-hr Monitoring)**

Station	Exceedance Level	Turbidity	DO	NH <sub>3</sub> -N	Total
SR4	Action	0	0	0	0
	Limit	0	0	0	0
SR5	Action	0	0	-	0
	Limit	0	0	-	0
SR12	Action	0	0	0	0
	Limit	0	0	0	0
SR13	Action	0	0	-	0
	Limit	0	0	-	0
Total	Action	0	0	0	0
	Limit	0	0	0	0

4.6 No exceedance was recorded in the reporting month.

#### 4.7 Action and Limit Levels

4.7.1 Referring to the ER Letter ref. (CV/2013/04)/M45/400/1247 dated 19 March 2015, a Revised Baseline Water Quality Monitoring Test Methodology – Review of Action and Limit Levels has been submitted to EPD by ER in March 2015. The Action and Limit Level for the wet season (April – October) was effected and applied to the water quality monitoring data from 1 April 2015. The Action and Limit Level is given in **Appendix C**.

#### 4.8 Event and Action Plan

4.8.1 The Event and Action Plan is given in **Appendix H**.



## 5. ENVIRONMENTAL SITE INSPECTION AND AUDIT

### 5.1 Site Inspections

5.1.1 Site inspections were carried out weekly by ET to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. In the reporting month, 4 site inspections were carried out on 27 June 2019, 4, 11 and 18 July 2019.

5.1.2 The Environmental Team conducted 4 site inspections in the reporting period. No particular observation was recorded in the reporting month except oil stain was found on the deck. The Contractor was reminded to wash the desk regularly and ensure no leakage of oil into the sea. The waste shall be treated and disposed properly as chemical waste.

5.1.3 According to Contractor, no archaeological deposit was found during reporting period.

### 5.2 Advice on the Solid and Liquid Waste Management Status

5.2.1 According to the Contractor, no general refuse were generated and disposed off site in the reporting period. Monthly summary of waste flow table is detailed in **Appendix K**.

### 5.3 Dredging and Disposal

5.3.1 Implementation of mitigation measures for dredging works and the associated dredging records were checked and the findings are summarized in **Table 5.1**.

**Table 5.1 Compliance with EP Conditions in the Reporting Month**

EP Condition	Compliance Status and/or Recommendations
3.1 (e) Silt Curtain Deployment	Silt curtain deployment complied with Silt Curtain Deployment Plan.
3.1 (f) Silt Screen Deployment Plan	Silt screens deployment at WSD1, WSD8 and EMSD1 complied with Silt Screen Deployment Plan.
3.1 (g) 24-hr environmental monitoring and audit	24-hr enhanced environmental monitoring and audit of water quality parameters implemented.

5.3.2 The daily dredging rates, silt curtain deployment and silt screen deployment within the Project area were checked and confirmed to be complied with EP conditions in general.

5.3.3 There was no inert or non-inert C&D material related to dredging works. No general refuse were disposed off site in the reporting month. The details can be referred to the **Table 5.2**.

**Table 5.2 Waste Quantities of Dredging Works**

Month	Marine Sediment Type	Quantity Generated from 23 June 2019 to 22 July 2019 (m <sup>3</sup> )	Cumulative to 22 July 2019 (m <sup>3</sup> )	Disposal / Dumping Ground
July 2019	Type 1 – Open Sea Disposal	0	1685700	NA
	Type 2 – Confined Marine Disposal	0	654130	NA
	Type 3 – Special Treatment / Disposal	0	1260	NA

Note:

1. All the Type 3 (Cat. Hf) sediment dredging and disposal was completed on 18 May 2016.
2. No dredging work was carried out and no marine sediment was disposed in the reporting month

**5.4 Implementation Status of Environmental Mitigation Measures**

A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in **Appendix J**. Most of the necessary mitigation measures were implemented properly.

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### 6. EXCEEDANCE OF THE ENVIRONMENTAL PARAMETERS

- 6.1.1 Ninety five (95) Limit Level exceedances were recorded in the routine impact monitoring in the reporting month.
- 6.1.2 No exceedance was recorded in the 24-hr monitoring in the reporting month.
- 6.1.3 Notification of exceedance is provided in **Appendix I**.

**7. NON-COMPLIANCE, COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION**

7.1.1 No complaint, notification of prosecutions or summons was received in the reporting period.

7.1.2 Cumulative complaint log, summaries of complaints, notification of summons and successful prosecutions are presented in Tables 7.1, 7.2 and 7.3.

**Table 7.1 Environmental Complaints Log**

Complaint Log No.	Date of Receipt	Received From and Received By	Nature of Complaint	Date Investigated	Outcome	Date of Reply
Nil	-	-	-	-	-	-

**Table 7.2 Cumulative Statistics on Complaints**

Environmental Parameters	Cumulative No. Brought Forward	No. of Complaints This Month	Cumulative Project-to-Date
Air	0	0	0
Noise	0	0	0
Water	0	0	0
Waste	0	0	0
Total	0	0	0

**Table 7.3 Cumulative Statistics on Successful Prosecutions**

Environmental Parameters	Cumulative No. Brought Forward	No. of Prosecutions This Month	Cumulative Project-to-Date
Air	0	0	0
Noise	0	0	0
Water	0	0	0
Waste	0	0	0
Total	0	0	0

## **8. CONCLUSIONS**

- 8.1.1 The dredging works was commenced on 23 April 2014. The EM&A programme was carried out in accordance with the EM&A Manual requirements. . No dredging work was carried out and no marine sediment was disposed in the reporting month.
- 8.1.2 Ninety five (95) Limit Level exceedances were recorded in the routine impact monitoring in the reporting month.
- 8.1.3 No complaint, notification of prosecutions or summons was received in the reporting period.
- 8.1.4 Based on the finding from the investigation on the recorded cases of exceedances, the cause was found not related to the project.
- 8.1.5 Environmental site inspections were carried out for 4 times in the reporting month.
- 8.1.6 No environmental complaint was received and followed up by Environmental Team in the reporting period.

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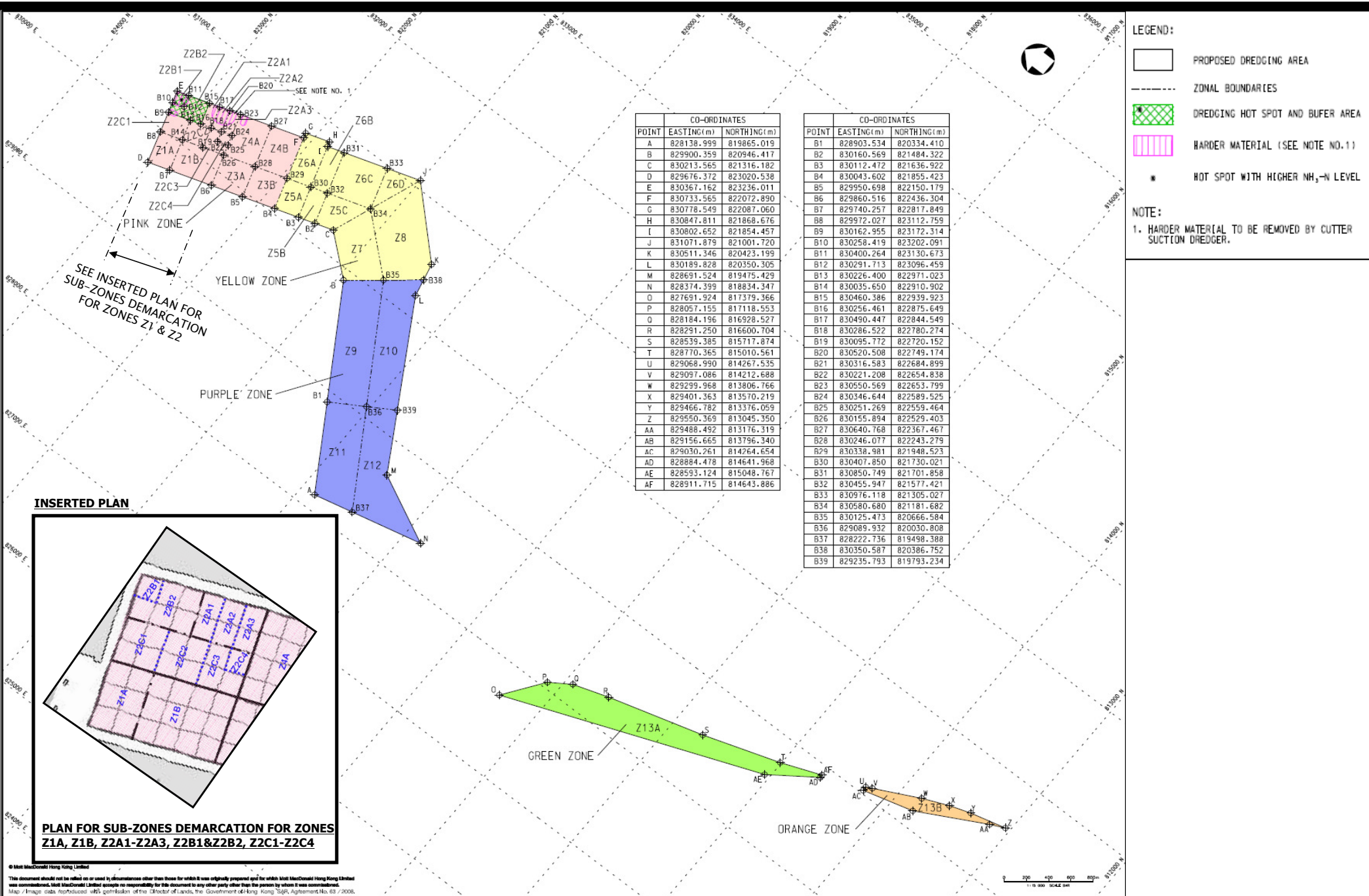


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Figure 1

Project General Layout



Project Title: Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel

Figure 2: Zones and Sub-zone of Dredging Plan Layout (Extracted from Figure 2 of Justification for the Proposed Demarcation of the Dredging Zones)

Environmental Permit No.:

EP-426/2011/A



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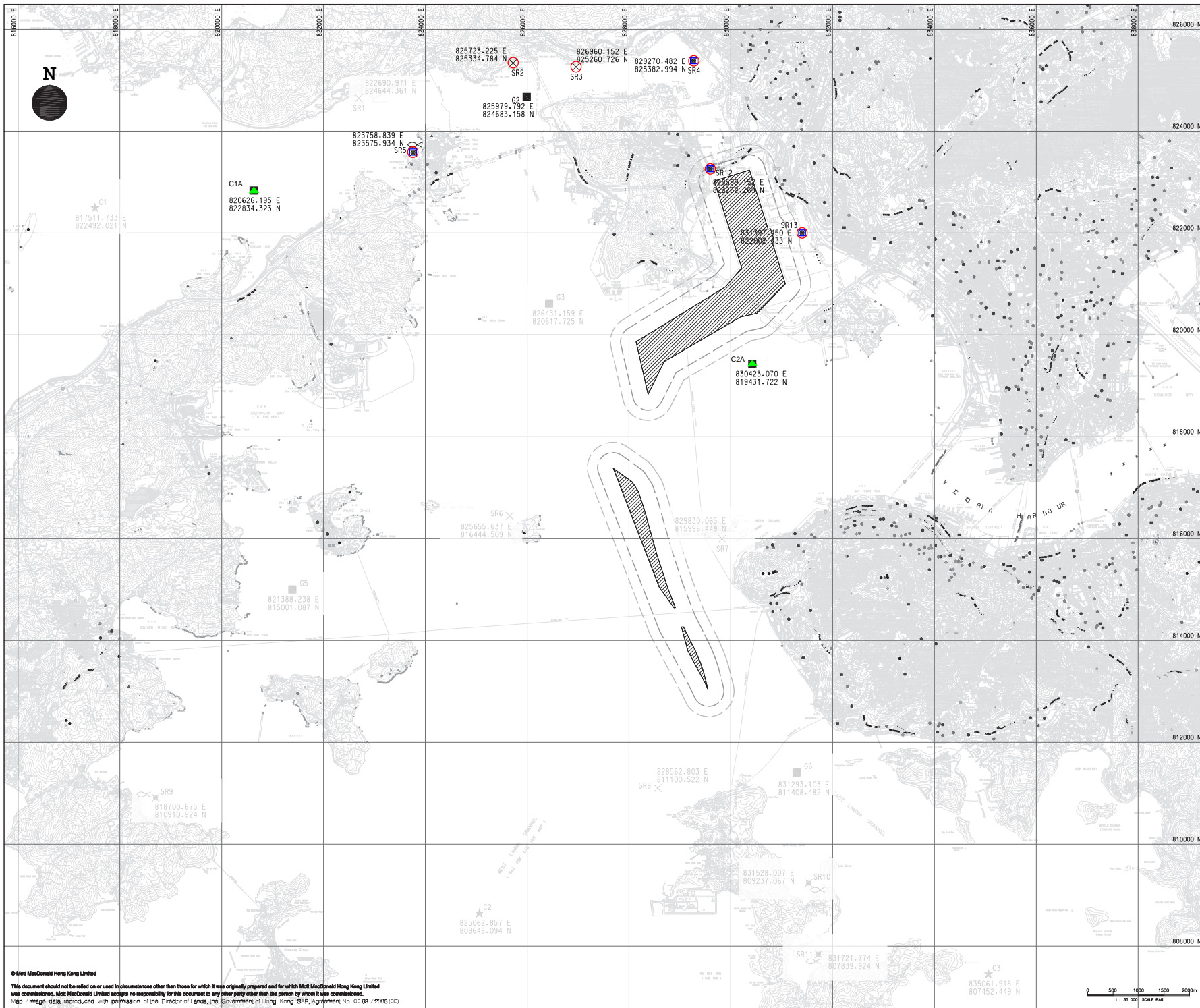


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Figure 2

Locations of Water Quality Monitoring Stations



NOTES:  
 1. ALL COORDINATES ARE IN HONG KONG METRIC GRID (1980).  
 2. THE CONTRACTOR SHALL REFER TO RELEVANT SECTION(S) AND APPENDICES OF THE PARTICULAR SPECIFICATION REGARDING THE WATER QUALITY MONITORING.

- LEGEND:
-  SITE BOUNDARY
  -  MONITORING STATION
  -  24 HOUR STATION
  -  CONTROL STATION
  -  GRADIENT STATION

Client  
 THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION  
 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

Project  
 CONTRACT NO. : CV/2013/04  
 DREDGING WORKS IN KWAI TSING CONTAINER BASIN AND ITS APPROACH CHANNEL

Title  
 PROVISIONAL LOCATION OF WATER QUALITY MONITORING STATIONS

Scale at A1	Status	Rev
1:35000	TEN	2

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Figure 2 - Location of Monitoring Stations

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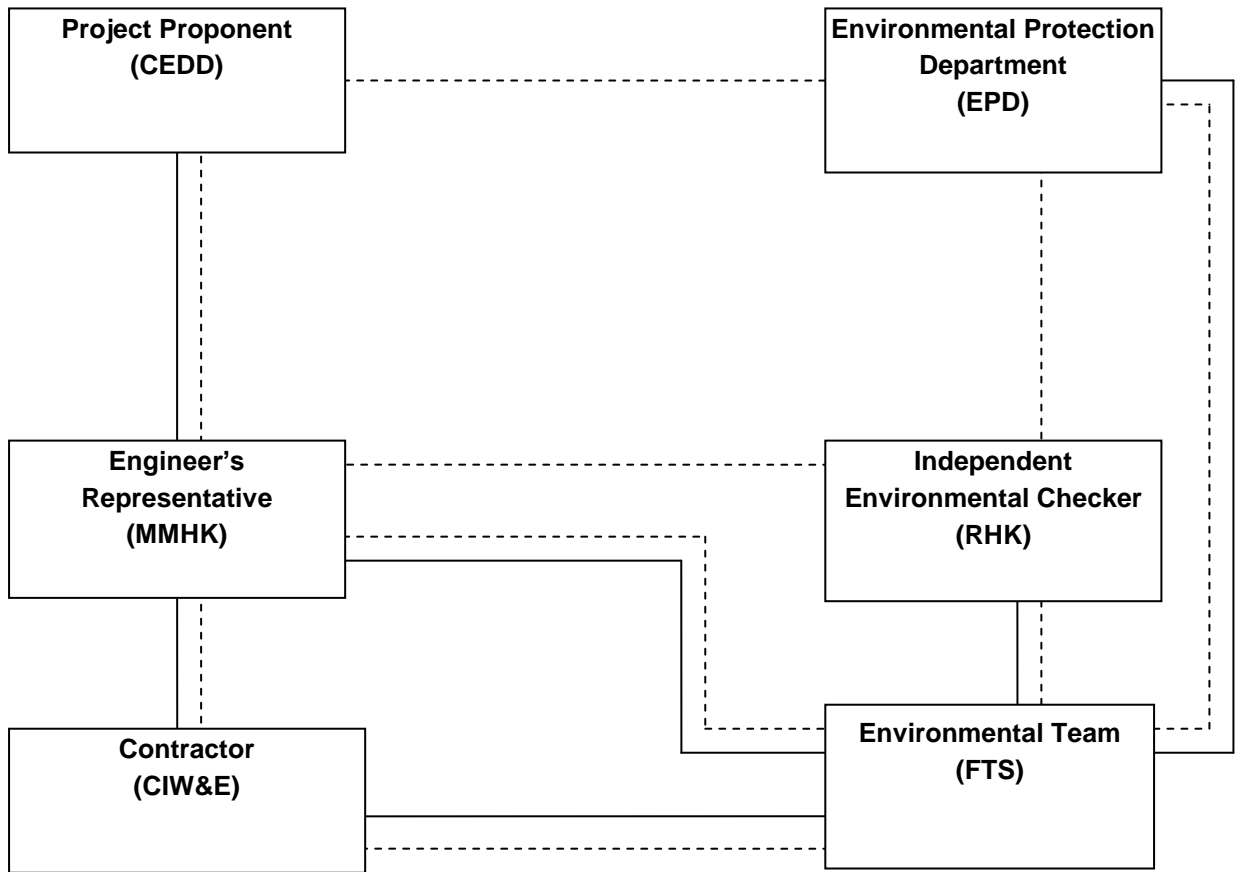
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## Appendix A Project Organization Chart



**Legend:**  
— Line of Reporting  
- - - Line of Communication

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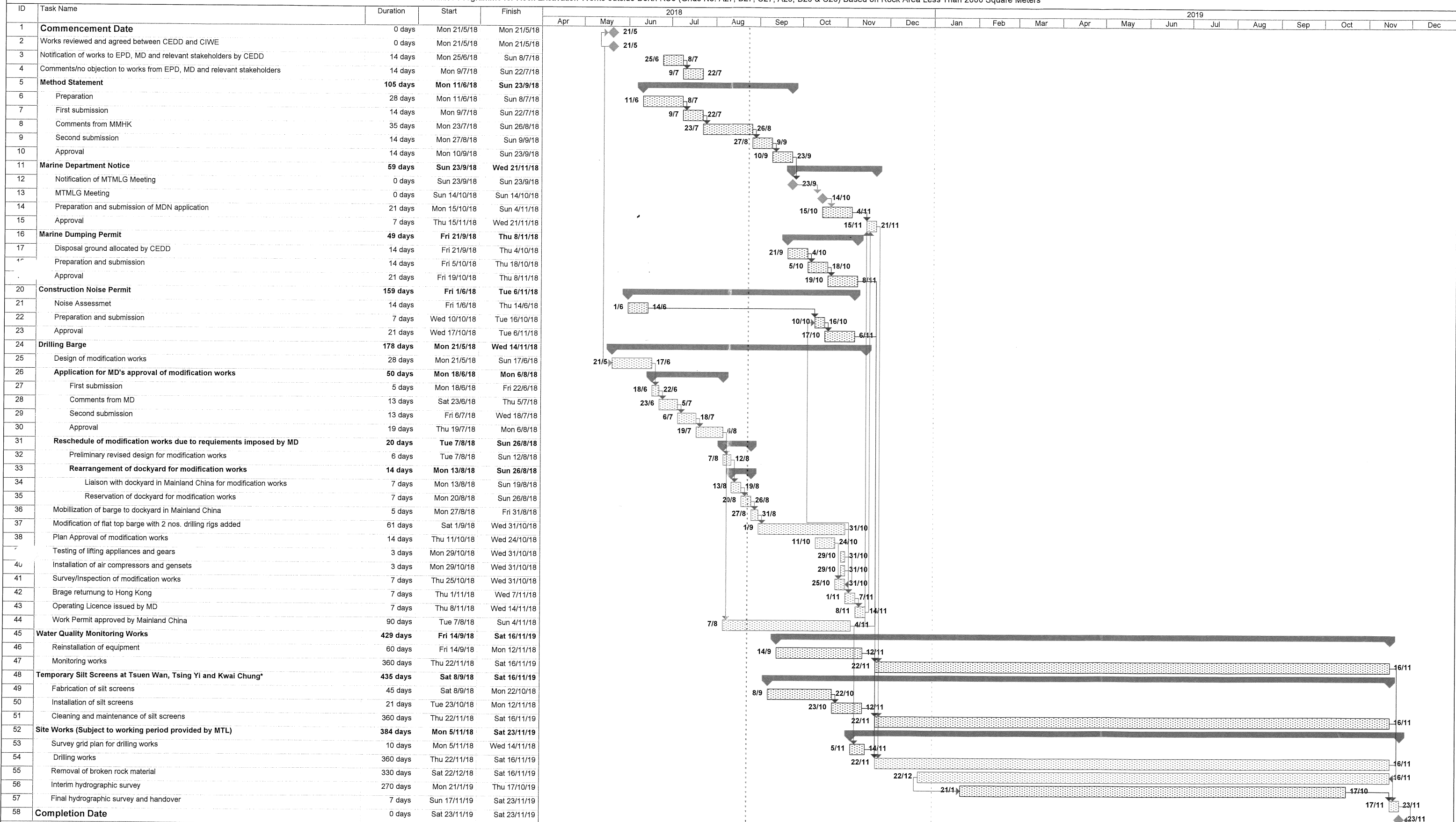
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### Appendix B Construction Programme

Contract No. CV/2013/04  
 Dredging Works in Kwai Tsing Container Basin and its Approach Channel  
 Tentative Programme for Rock Excavation Works outside Berth KC5 (Grids No. A27, B27, C27, A26, B26 & C26) Based on Rock Area Less Than 2000 Square Meters

Date: 20 August 2018  
 Rev. 2



China International Water & Electric Corp. Task [Pattern] Critical Task [Pattern] Milestone [Diamond] Summary [Arrow]

\* Scope of works to be discussed further.

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### Appendix C Action and Limit Levels

Action and Limit Levels for Routine Water Quality Monitoring (Dry Season)

Monitoring Station	DO (mg/L) Surface & Middle		DO (mg/L) Bottom		Turbidity (NTU) Depth-Averaged		Suspended Solids (mg/L) Depth-averaged		BOD5(mg/L) Depth- averaged		E.coli (CFU /100mL) Depth-averaged		NH3-N (mg/L) Depth-averaged		UIA (mg/L) Depth-averaged		Synthetic Detergent as MBAS (mg/L) Depth- averaged		TIN (mg/L) Depth Averaged	
	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
Seawater Intake																				
SR4	2	2	2	2	<10	<10	<10	<10	<10	<10	<20,000	<20,000	<1	<1	0.021	0.021	<5	<5	NA	NA
SR12																				
Fish Culture Zone																				
SR5	5.45	5.39 <sup>#</sup>	5.43	5.27 <sup>+</sup>	6.7 or 120% <sup>C*</sup>	10.1 or 130% <sup>C^</sup>	12 or 120% <sup>C*</sup>	19 or 130% <sup>C^</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.36	0.39
Gazetted Beach																				
SR2	5.45	5.39 <sup>#</sup>	5.43	5.27 <sup>+</sup>	6.7 or 120% <sup>C*</sup>	10.1 or 130% <sup>C^</sup>	12 or 120% <sup>C*</sup>	19 or 130% <sup>C^</sup>	NA	NA	NA	NA	0.21 or 120% <sup>C*</sup>	0.24 or 130% <sup>C^</sup>	0.021	0.021	NA	NA	NA	NA
SR3																				
EMSD Cooling Water Intake																				
SR13	5.31	5.22 <sup>#</sup>	5.29	5.12 <sup>+</sup>	13.1 or 120% <sup>C*</sup>	15.7 or 130% <sup>C^</sup>	23 or 120% <sup>C*</sup>	38 or 130% <sup>C^</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note:

\* Or 120% of upstream control station at the same tide of the day

^ Or 130% of upstream control station at the same tide of the day

# According to EM&A Manual, LL of DO (surface & middle) is 5 mg/L or 1 percentile of baseline data in FCZ; 4 mg/L or 1 percentile of baseline data in other impact monitoring stations.

+ According to EM&A Manual, LL of DO (bottom) is 2 mg/L or 1 percentile of baseline data

For DO measurement, non-compliance occurs when monitoring result is lower than the limits;

For TIN, UIA, NH<sub>3</sub>-N, SS, BOD<sub>5</sub>, E.coli, synthetic detergent and turbidity, non-compliance of water quality results when monitoring results is higher than the limits;

AL/LL of TIN and NH<sub>3</sub>-N are determined from laboratory results for better accuracy and reliability. These AL/LL will be applied to both laboratory and in-situ measurements at impact stage.

Dry Season: November to March



## Action and Limit Levels for Routine Water Quality Monitoring (Wet Season)

Monitoring Station	DO (mg/L) Surface & Middle		DO (mg/L) Bottom		Turbidity (NTU) Depth-Averaged		Suspended Solids (mg/L) Depth-averaged		BOD5 (mg/L) Depth- averaged		E.coli (CFU /100mL) Depth-averaged		NH3-N (mg/L) Depth-averaged		UIA (mg/L) Depth-averaged		Synthetic Detergent as MBAS (mg/L) Depth-averaged		TIN (mg/L) Depth Averaged	
	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
Seawater Intake																				
SR4	2	2	2	2	<10	<10	<10	<10	<10	<10	<20,000	<20,000	<1	<1	0.021	0.021	<5	<5	NA	NA
SR12																				
Fish Culture Zone																				
SR5	5.00#	5.00#	4.11	4.04+	10.8 or 120%C*	15.0 or 130%C^	12 or 120%C*	19 or 130%C^	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.45	0.50
Gazetted Beach																				
SR2	4.68	4.62#	4.11	4.04+	10.8 or 120%C*	15.0 or 130%C^	12 or 120%C*	19 or 130%C^	NA	NA	NA	NA	0.21 or 120%C*	0.24 or 130%C^	0.021	0.021	NA	NA	NA	NA
SR3																				
EMSD Cooling Water Intake																				
SR13	4.24	4.17#	3.70	3.58+	13.1 or 120%C*	15.7 or 130%C^	23 or 120%C*	38 or 130%C^	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note:

\* Or 120% of upstream control station at the same tide of the day

^ Or 130% of upstream control station at the same tide of the day

# According to EM&A Manual, LL of DO (surface & middle) is 5 mg/L or 1 percentile of baseline data in FCZ; 4 mg/L or 1 percentile of baseline data in other impact monitoring stations. (5%ile & 1 %ile determined from wet season baseline data for cluster 1 (4.68mg/L & 4.62mg/L) and cluster 2 (5.00mg/L & 4.82mg/L) are 5mg/L or below, thus 5mg/L was adopted as the AL & LL for the SR in FCZ)

+ According to EM&A Manual, LL of DO (bottom) is 2 mg/L or 1 percentile of baseline data

Referring to the ER Letter ref. (CV/2013/04)/M45/400/1247 dated 19 March 2015, a Revised Baseline Water Quality Monitoring Test Methodology – Review of Action and Limit Levels has been submitted to EPD by ER in March 2015. The Action and Limit Level for the wet season (April – October) was effected and applied to the water quality monitoring data from 1 April 2015.

For DO measurement, non-compliance occurs when monitoring result is lower than the limits;

For TIN, UIA, NH<sub>3</sub>-N, SS, BOD<sub>5</sub>, E.coli, synthetic detergent and turbidity, non-compliance of water quality results when monitoring results is higher than the limits;

AL/LL of TIN and NH<sub>3</sub>-N are determined from laboratory results for better accuracy and reliability. These AL/LL will be applied to both laboratory and in-situ measurements at impact stage.

Wet season: April to October

Action and Limit Levels for 24-hr Water Quality Monitoring (Dry Season)

Monitoring Station	DO (mg/L) Surface		Turbidity (NTU) Surface		Ammonia-N (mg/L) Surface	
	AL	LL	AL	LL	AL	LL
WSD Seawater Intake						
SR4	2	2	<10	<10	<1	<1
SR12						
Fish Culture Zone						
SR5	5.46	5.39	6.0	7.9	NA	NA
EMSD Cooling Water Intake						
SR13	5.28	5.22	11.9	13.3	NA	NA

Note: According to EM&A Manual, LL of DO (surface & middle) is 5 mg/L or 1 percentile of baseline data in FCZ; 4 mg/L or 1 percentile of baseline data in other impact monitoring stations.

Dry Season: November to March.

Action and Limit Levels for 24-hr Water Quality Monitoring (Wet Season)

Monitoring Station	DO (mg/L) Surface		Turbidity (NTU) Surface		Ammonia-N (mg/L) Surface	
	AL	LL	AL	LL	AL	LL
WSD Seawater Intake						
SR4	2	2	<10	<10	<1	<1
SR12						
Fish Culture Zone						
SR5	5.24	5.13	9.7	14.4	NA	NA
EMSD Cooling Water Intake						
SR13	4.23	4.17	11.9	13.3	NA	NA

Note: # According to EM&A Manual, LL of DO (surface & middle) is 5 mg/L or 1 percentile of baseline data in FCZ; 4 mg/L or 1 percentile of baseline data in other impact monitoring stations. (1 %ile determined from wet season baseline data for cluster 2 (4.78mg/L) is below 5mg/L, thus 5mg/L was adopted as the DO (surface) LL for the SR in FCZ in cluster 2 stations)

Referring to the ER Letter ref. (CV/2013/04)/M45/400/1247 dated 19 March 2015, a Revised Baseline Water Quality Monitoring Test Methodology – Review of Action and Limit Levels has been submitted to EPD by ER in March 2015. The Action and Limit Level for the wet season (April – October) was effected and applied to the water quality monitoring data from 1 April 2015.

Wet Season: April to October.

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---

Report No.: 0394/13/ED/0380A

## Appendix D Copies of Calibration Certificates

# FUGRO TECHNICAL SERVICES LIMITED

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## Calibration Certificates Impact Monitoring

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# MaterialLab

Report No. : 142626WA190859



Page 1 of 3

## Report on Calibration of YSI 69201V2-M Multi-parameter Water Quality Meter

### Information Supplied by Client

Client : MaterialLab Consultants Limited

Client's address : Rm. 723-726, 7/F, Profit Industrial Building, No. 1-15,  
Kwai Fung Crescent, Kwai Chung, N.T.

Sample description : One YSI 69201V2-M Multi-parameter Water Quality Meter

Client sample ID : Serial No. 18L104179

Test required : Calibration of the YSI 69201V2-M Multi-parameter Water Quality  
Meter

### Laboratory Information

Lab. sample ID : WA190859/1

Date sample received : 02/04/2019

Date of calibration : 03/04/2019

Next calibration date : 02/07/2019

Test method used : In-house comparison method

*Note : This report refers only to the sample(s) tested.*

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# MaterialLab

Report No. : 142626WA190859

Page 2 of 3

**Results :****A. pH calibration**

pH reading at 23°C for Q.C. solution(6.86) and at 23°C for Q.C. solution(9.18)		
Theoretical	Measured	Deviation
9.18	9.14	-0.04
6.86	6.92	+0.06

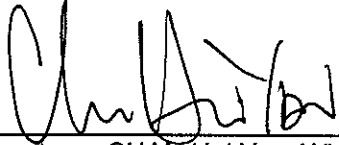
**B. Salinity calibration**

Salinity, ppt			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
10	10.10	+0.10	± 0.5
20	20.59	+0.59	± 1.0
30	30.44	+0.44	± 1.5
40	40.96	+0.96	± 2.0

**C. Dissolved Oxygen calibration**

Trial No.	Dissolved oxygen content, mg/L	
	By Titration	By D.O. meter
1	8.60	8.52
2	8.40	8.55
3	8.38	8.57
Average	8.46	8.55

Differences of D.O. Content between Wrinkler Titration and D.O. meter should be less than 0.4 mg/L

Certified by :   
Approved Signatory : CHAN Hoi Yan, Winnie  
Assistant Manager

Date : 08/04/2019

Note : This report refers only to the sample(s) tested.

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# MaterialLab

Report No. : 142626WA190859

Page 3 of 3


## Results :

### D. Temperature calibration

Thermometer reading, °C	Meter reading, °C
23.65	23.7

### E. Turbidity calibration

Turbidity, N.T.U.			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
0	0.1	+0.1	± 0.5
4	4.5	+0.5	± 0.6
8	8.5	+0.5	± 0.8
40	42.7	+2.7	± 3.0
80	81.2	+1.2	± 4.0

Certified by :   
Approved Signatory : CHAN Hoi Yan, Winnie  
Assistant Manager

Date : 08/04/2019  
\*\* End of Report \*\*

Note : This report refers only to the sample(s) tested.

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# **MaterialLab**

Report No. : 142626WA191640



Page 1 of 3

## **Report on Calibration of YSI EXO-3 Multi-parameter Water Quality Meter**

### **Information Supplied by Client**

Client : Fugro Technical Services Limited (MCL)  
Client's address : Rm. 723-726, 7/F, Profit Industrial Building, No. 1-15,  
Kwai Fung Crescent, Kwai Chung, N.T.  
Sample description : One YSI EXO-3 Multi-parameter Water Quality Meter  
Client sample ID : Serial No. 19E100634  
Test required : Calibration of the YSI EXO-3 Multi-parameter Water Quality Meter

### **Laboratory Information**

Lab. sample ID : WA191640/1  
Date of calibration : 18/06/2019  
Next calibration date : 17/09/2019  
Test method used : In-house comparison method based on Exo User Manual  
(Item# 603789Ref Revision H)

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# MaterialLab

Report No. : 142626WA191640

Page 2 of 3

## Results :

### A. Conductivity calibration

Conductivity, mhos/cm			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
50	50.00	0.00	± 2.5

### B. Dissolved Oxygen calibration

Air-saturated DO, % at 749.7mmHg			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
100	98.6	-1.4	± 10

### C. Turbidity calibration

Turbidity, F.N.U.			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
0	0.00	0.00	± 0.5
126	124.00	-2.00	± 6.5

Certified by :   
Approved Signatory : HO Kin Man, John  
Assistant General Manager – Laboratories

Date : 6/8/2019

Note : This report refers only to the sample(s) tested.

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# MaterialLab

Report No. : 142626WA191640

Page 3 of 3

## Results :

### D. pH calibration

pH reading & mV at 25°C for Q.C. solution(4.00), Q.C. solution(7.00) & Q.C. solution(10.00)					
Theoretical value (pH)	Measured	Deviation	Theoretical value (mV)	Measured	Deviation
4.00	4.00	0.00	177.30	178.80	+1.50
7.00	7.00	0.00	0.00	-7.50	-7.50
10.00	10.00	0.00	-177.30	-182.40	-5.10

### E. Chlorophyll calibration

Chlorophyll reading at 25.0°C for Std. solution (0ug/L) and at 25.3°C for Std. solution (62.5ug/L)		
Theoretical (ug/L) (Temp.-compensated)	Measured	Deviation
0.00	0.00	0.00
61.30	62.00	-0.70

Certified by : 

Approved Signatory : HO Kin Man, John  
Assistant General Manager – Laboratories

Date

: 6/8/2019

\*\* End of Report \*\*

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 Email : mcl@fugro.com.hk

**MaterialLab**Photometer Check Log

Calibration Date:	14 June 2019		
Parameter:	NH <sub>3</sub> -N		
Check Solution ID:	0.2 mg/L NH <sub>3</sub> -N		
Check Solution Prepared by:	Fugro Technical Services Limited		
Check Solution Concentration (mg/L):	0.2 mg/L		
Equipment (Brand & Model, Equipment No.):	Lovibond MD600 W-18	Lovibond MD600 W-20	Lovibond MD600 W-21
Concentration Reading on Photometer:	0.19 mg/L	0.20 mg/L	0.20 mg/L
Next Calibration Date:	13 July 2019		

Prepared by: ASDate: 14 June 2019Checked by: fDate: 14 June 2019

# FUGRO TECHNICAL SERVICES LIMITED

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## MaterialLab

### Photometer Check Log

Calibration Date:	14 June 2019		
Parameter:	NO <sub>2</sub> -N		
Check Solution ID:	0.2mg/L NO <sub>2</sub> -N		
Check Solution Prepared by:	Fugro Technical Services Limited		
Check Solution Concentration (mg/L):	0.2 mg/L		
Equipment (Brand & Model, Equipment No.):	Loribond MD600 W-19	Loribond MD600 W-20	Loribond MD600 W-21
Concentration Reading on Photometer:	0.21 mg/L	0.20 mg/L	0.19 mg/L
Next Calibration Date:	13 July 2019		

Prepared by: AV

Date: 14 June 2019

Checked by: P

Date: 14 June 2019


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**Photometer Check Log**

Calibration Date:	14 June 2019		
Parameter:	NO <sub>3</sub> -N		
Check Solution ID:	0.4 mg/L NO <sub>3</sub> -N		
Check Solution Prepared by:	Fugro Technical Services Limited		
Check Solution Concentration (mg/L):	0.4 mg/L		
Equipment (Brand & Model, Equipment No.):	HACH DR900 w-09	HACH DR900 w-10	HACH DR900 w-11
Concentration Reading on Photometer:	0.409 mg/L	0.394 mg/L	0.417 mg/L
Next Calibration Date:	13 July 2019		

Prepared by: 

Date: 14 June 2019

Checked by: 

Date: 14 June 2019





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**MaterialLab****Photometer Check Log**

Calibration Date:	12 July 2019		
Parameter:	NO <sub>3</sub> -N		
Check Solution ID:	0.4 mg/L NO <sub>3</sub> -N		
Check Solution Prepared by:	Fugro Technical Services Limited		
Check Solution Concentration (mg/L):	0.4 mg/L		
Equipment (Brand & Model, Equipment No.):	HACH DR900 w-09	HACH DR900 w-10	HACH DR900 w-11
Concentration Reading on Photometer:	0.398 mg/L	0.385 mg/L	0.406 mg/L
Next Calibration Date:	11 August 2019		

Prepared by: ASDate: 12 July 2019Checked by: GrDate: 12 July 2019



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## Calibration Certificate 24-hr Monitoring

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---

## Calibration Certificate 24-hr Monitoring – SR4

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# MaterialLab

Report No. : 142626WA191088



Page 1 of 3

### Report on Calibration of YSI 69201V2-M Multi-parameter Water Quality Meter

#### Information Supplied by Client

Client : MaterialLab Consultants Limited  
Client's address : Rm. 723-726, 7/F, Profit Industrial Building, No. 1-15,  
Kwai Fung Crescent, Kwai Chung, N.T.  
Sample description : One YSI 69201V2-M Multi-parameter Water Quality Meter  
Client sample ID : Serial No. 18L104182  
Test required : Calibration of the YSI 69201V2-M Multi-parameter Water Quality  
Meter

#### Laboratory Information

Lab. sample ID : WA191088/1  
Date sample received : 24/05/2019  
Date of calibration : 24/05/2019  
Next calibration date : 23/08/2019  
Test method used : In-house comparison method

*Note : This report refers only to the sample(s) tested.*

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Report No. : 142626WA191088

Page 2 of 3

**Results :****A. pH calibration**

pH reading at 24°C for Q.C. solution(6.86) and at 23°C for Q.C. solution(9.18)		
Theoretical	Measured	Deviation
9.18	9.06	-0.12
6.86	6.79	-0.07

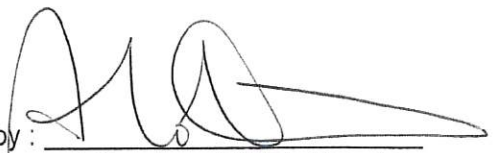
**B. Salinity calibration**

Salinity, ppt			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
10	10.01	+0.01	± 0.5
20	20.19	+0.19	± 1.0
30	30.01	+0.01	± 1.5
40	39.75	-0.25	± 2.0

**C. Dissolved Oxygen calibration**

Trial No.	Dissolved oxygen content, mg/L	
	By Titration	By D.O. meter
1	7.82	7.77
2	7.99	7.81
3	8.02	7.82
Average	7.94	7.80

Differences of D.O. Content between Wrinkler Titration and D.O. meter should be less than 0.4 mg/L

Certified by :   
 Approved Signatory : HO Kin Man, John  
 Assistant General Manager – Laboratories  
 Date : 2/7/2019

Note : This report refers only to the sample(s) tested.

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# MaterialLab

Report No. : 142626WA191088

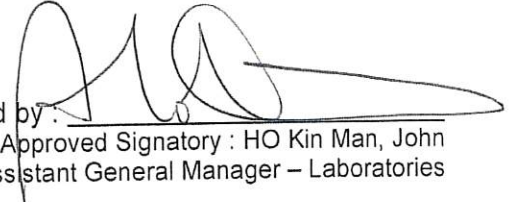
Page 3 of 3

**Results :****D. Temperature calibration**

Thermometer reading, °C	Meter reading, °C
24.4	23.35

**E. Turbidity calibration**

Turbidity, N.T.U.			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
0	0.2	+0.2	± 0.5
4	3.9	-0.1	± 0.6
8	7.8	-0.2	± 0.8
40	39.3	-0.7	± 3.0
80	80.0	0.0	± 4.0

Certified by : 

Approved Signatory : HO Kin Man, John  
Assistant General Manager – Laboratories

Date

: 2/7/2019

\*\* End of Report \*\*

*Note : This report refers only to the sample(s) tested.*

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---

Calibration Certificate  
24-hr Monitoring – SR5

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# MaterialLab

Report No. : 142626WA190647



Page 1 of 3

### Report on Calibration of YSI EXO-3 Multi-parameter Water Quality Meter

#### Information Supplied by Client

Client : MaterialLab Consultants Limited  
Client's address : Rm. 723-726, 7/F, Profit Industrial Building, No. 1-15,  
Kwai Fung Crescent, Kwai Chung, N.T.  
Sample description : One YSI EXO-3 Multi-parameter Water Quality Meter  
Client sample ID : Serial No. 19A105807  
Test required : Calibration of the YSI EXO-3 Multi-parameter Water Quality Meter

#### Laboratory Information

Lab. sample ID : WA190647/1  
Date sample received : 24/02/2019  
Date of calibration : 01/04/2019  
Next calibration date : 30/06/2019  
Test method used : In-house comparison method

*Note : This report refers only to the sample(s) tested.*

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**MaterialLab**

Report No. : 142626WA190647

Page 2 of 3

**Results :****A. pH calibration**

pH reading at 21°C for Q.C. solution(6.86) and at 21°C for Q.C. solution(9.18)		
Theoretical	Measured	Deviation
9.18	9.18	0.00
6.86	6.87	+0.01


**B. Salinity calibration**

Salinity, ppt			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
10	9.89	-0.11	± 0.5
20	19.94	-0.06	± 1.0
30	29.98	-0.02	± 1.5
40	40.17	+0.17	± 2.0

**C. Dissolved Oxygen calibration**

Trial No.	Dissolved oxygen content, mg/L	
	By Titration	By D.O. meter
1	8.37	8.55
2	8.37	8.54
3	8.60	8.55
Average	8.45	8.55

Differences of D.O. Content between Wrinkler Titration and D.O. meter should be less than 0.4 mg/L

Certified by:   
Approved Signatory : HO Kin Man, John  
Assistant General Manager – Laboratories  
Date : 8/4/2019

Note : This report refers only to the sample(s) tested.



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# MaterialLab

Report No. : 142626WA190647

Page 3 of 3

## Results :

### D. Temperature calibration

Thermometer reading, °C	Meter reading, °C
21.3	21.33

### E. Turbidity calibration

Turbidity, N.T.U.			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
0	0.02	+0.02	± 0.5
4	4.40	+0.40	± 0.6
8	8.60	+0.60	± 0.8
40	38.8	-1.2	± 3.0
80	83.2	+3.2	± 4.0

Certified by : 

Approved Signatory : HO Kin Man, John  
Assistant General Manager – Laboratories

Date

: 8/4/2019

\*\* End of Report \*\*

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**MaterialLab**

Report No. : 142626WA191408(2)A



Page 1 of 3

## Report on Calibration of YSI EXO-3 Multi-parameter Water Quality Meter

### Information Supplied by Client

Client : Fugro Technical Services Limited (MCL)  
Client's address : Rm. 723-726, 7/F, Profit Industrial Building, No. 1-15,  
Kwai Fung Crescent, Kwai Chung, N.T.  
Sample description : One YSI EXO-3 Multi-parameter Water Quality Meter  
Client sample ID : Serial No. 19E100633  
Test required : Calibration of the YSI EXO-3 Multi-parameter Water Quality Meter

### Laboratory Information

Lab. sample ID : WA191408/3  
Date sample received : 21/06/2019  
Date of calibration : 28/06/2019  
Next calibration date : 27/09/2019  
Test method used : In-house comparison method

*Note : This report refers only to the sample(s) tested.*

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# MaterialLab

Report No. : 142626WA191408(2)A

Page 2 of 3

## Results :

### A. pH calibration

pH reading at 22°C for Q.C. solution(6.86) and at 22°C for Q.C. solution(9.18)		
Theoretical	Measured	Deviation
9.18	9.18	0.00
6.86	6.76	-0.10

### B. Salinity calibration

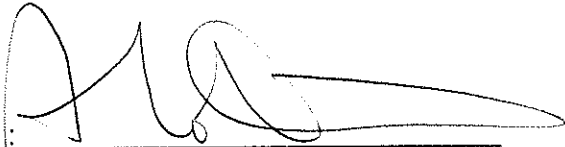
Salinity, ppt			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
10	10.1	+0.1	± 0.5
20	20.2	+0.2	± 1.0
30	30.1	+0.1	± 1.5
40	40.4	+0.4	± 2.0

### C. Dissolved Oxygen calibration

Trial No.	Dissolved oxygen content, mg/L	
	By Titration	By D.O. meter
1	7.87	7.91
2	8.10	7.96
3	7.83	8.00
Average	7.93	7.96

Differences of D.O. Content between Wrinkler Titration and D.O. meter should be less than 0.2 mg/L

Remark : This report is to supersede our former report #142626WA191408(2).

Certified by :   
Approved Signatory : HO Kin Man, John  
Assistant General Manager – Laboratories

Date : 6/8/2019

Note : This report refers only to the sample(s) tested.

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# MaterialLab

Report No. : 142626WA191408(2)A

Page 3 of 3

## Results :

### D. Temperature calibration

Thermometer reading, °C	Meter reading, °C
23.0	22.83

### E. Turbidity calibration

Turbidity, N.T.U.			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
0	0.0	0.0	± 0.5
4	4.4	+0.4	± 0.6
8	8.2	+0.2	± 0.8
40	41.1	+1.1	± 3.0
80	80.2	+0.2	± 4.0

Remark : This report is to supersede our former report #142626WA191408(2).

Certified by :   
Approved Signatory : HO Kin Man, John  
Assistant General Manager – Laboratories

Date : 6/8/2019  
\*\* End of Report \*\*

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---

Calibration Certificate  
24-hr Monitoring – SR12

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# MaterialLab

Report No. : 142626WA190647(1)



Page 1 of 3

### Report on Calibration of YSI EXO-3 Multi-parameter Water Quality Meter

#### Information Supplied by Client

Client : MaterialLab Consultants Limited  
Client's address : Rm. 723-726, 7/F, Profit Industrial Building, No. 1-15,  
Kwai Fung Crescent, Kwai Chung, N.T.  
Sample description : One YSI EXO-3 Multi-parameter Water Quality Meter  
Client sample ID : Serial No. 19A105808  
Test required : Calibration of the YSI EXO-3 Multi-parameter Water Quality Meter

#### Laboratory Information

Lab. sample ID : WA190647/2  
Date sample received : 24/02/2019  
Date of calibration : 01/04/2019  
Next calibration date : 30/06/2019  
Test method used : In-house comparison method

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# MaterialLab

Report No. : 142626WA190647(1)

Page 2 of 3

## Results :

### A. pH calibration

pH reading at 21°C for Q.C. solution(6.86) and at 21°C for Q.C. solution(9.18)		
Theoretical	Measured	Deviation
9.18	9.15	-0.03
6.86	6.92	+0.06

### B. Salinity calibration

Salinity, ppt			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
10	9.85	-0.15	± 0.5
20	19.85	-0.15	± 1.0
30	30.00	0.00	± 1.5
40	40.00	0.00	± 2.0

### C. Dissolved Oxygen calibration

Trial No.	Dissolved oxygen content, mg/L	
	By Titration	By D.O. meter
1	8.40	8.47
2	8.50	8.49
3	8.54	8.48
Average	8.48	8.48

Differences of D.O. Content between Winkler Titration and D.O. meter should be less than 0.4 mg/L

Certified by :

Approved Signatory : HO Kin Man, John  
Assistant General Manager – Laboratories

Date :

8/4/2019

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# MaterialLab

Report No. : 142626WA190647(1)

Page 3 of 3

## Results :

### D. Temperature calibration

Thermometer reading, °C	Meter reading, °C
21.3	21.34

### E. Turbidity calibration

Turbidity, N.T.U.			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
0	0.00	0.00	± 0.5
4	4.34	+0.34	± 0.6
8	8.55	+0.55	± 0.8
40	42.2	+2.2	± 3.0
80	82.5	+2.5	± 4.0

Certified by : 

Approved Signatory : HO Kin Man, John  
Assistant General Manager – Laboratories

Date

: 8/4/2019

\*\* End of Report \*\*

Note : This report refers only to the sample(s) tested.



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**MaterialLab**

Report No. : 142626WA191408A



Page 1 of 3

## Report on Calibration of YSI 69201V2-M Multi-parameter Water Quality Meter

### Information Supplied by Client

Client : Fugro Technical Services Limited (MCL)  
Client's address : Rm. 723-726, 7/F, Profit Industrial Building, No. 1-15,  
Kwai Fung Crescent, Kwai Chung, N.T.  
Sample description : One YSI 69201V2-M Multi-parameter Water Quality Meter  
Client sample ID : Serial No. 18L104181  
Test required : Calibration of the YSI 69201V2-M Multi-parameter Water Quality  
Meter

### Laboratory Information

Lab. sample ID : WA191408/1  
Date sample received : 21/06/2019  
Date of calibration : 28/06/2019  
Next calibration date : 27/09/2019  
Test method used : In-house comparison method

*Note : This report refers only to the sample(s) tested.*

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# MaterialLab

Report No. : 142626WA191408A

Page 2 of 3

## Results :

### A. pH calibration

pH reading at 22°C for Q.C. solution(6.86) and at 22°C for Q.C. solution(9.18)		
Theoretical	Measured	Deviation
9.18	9.18	0.00
6.86	6.78	-0.08

### B. Salinity calibration

Salinity, ppt			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
10	10.1	+0.1	± 0.5
20	20.3	+0.3	± 1.0
30	30.2	+0.2	± 1.5
40	40.8	+0.8	± 2.0

### C. Dissolved Oxygen calibration

Trial No.	Dissolved oxygen content, mg/L	
	By Titration	By D.O. meter
1	8.02	8.20
2	7.99	8.13
3	7.92	8.10
Average	7.98	8.14

Differences of D.O. Content between Wrinkler Titration and D.O. meter should be less than 0.2 mg/L

Remark : This report is to supersede our former report #142626WA191408.

Certified by :   
Approved Signatory : HO Kin Man, John  
Assistant General Manager – Laboratories

Date : 6/8/2019

Note : This report refers only to the sample(s) tested.

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# MaterialLab

Report No. : 142626WA191408A

Page 3 of 3

## Results :

### D. Temperature calibration

Thermometer reading, °C	Meter reading, °C
22.2	22.13

### E. Turbidity calibration

Turbidity, N.T.U.			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
0	0.0	0.0	± 0.5
4	4.4	+0.4	± 0.6
8	7.6	-0.4	± 0.8
40	39.7	-0.3	± 3.0
80	80.0	0.0	± 4.0

Remark : This report is to supersede our former report #142626WA191408.

Certified by : 

Approved Signatory : HO Kin Man, John  
Assistant General Manager – Laboratories

Date : 6/8/2019

\*\* End of Report \*\*

Note : This report refers only to the sample(s) tested.

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---

Calibration Certificate  
24-hr Monitoring – SR13

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# MaterialLab

Report No. : 142626WA190649(1)



Page 1 of 2

### Report on Calibration of YSI 69201V2-M Multi-parameter Water Quality Meter

#### Information Supplied by Client

Client : Fugro Technical Services Limited (MCL)  
Client's address : Rm. 723-726, 7/F, Profit Industrial Building, No. 1-15,  
Kwai Fung Crescent, Kwai Chung, N.T.  
Project : -  
Sample description : One YSI 69201V2-M Multi-parameter Water Quality Meter  
Client sample ID : Serial No. 14A102898  
Test required : Calibration of the YSI 69201V2-M Multi-parameter Water Quality  
Meter

#### Laboratory Information

Lab. sample ID : WA190649/2  
Date sample received : 24/02/2019  
Date of calibration : 01/04/2019  
Next calibration date : 30/06/2019  
Test method used : In-house comparison method

*Note : This report refers only to the sample(s) tested.*

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# MaterialLab

Report No. : 142626WA190649(1)

Page 2 of 2

**Results :**

**A. Salinity calibration**

Salinity, ppt			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
10	9.93	-0.07	± 0.5
20	20.25	+0.25	± 1.0
30	30.38	+0.38	± 1.5
40	40.76	+0.76	± 2.0


**B. Dissolved Oxygen calibration**

Trial No.	Dissolved oxygen content, mg/L	
	By Titration	By D.O. meter
1	8.70	8.60
2	8.75	8.58
3	8.40	8.53
Average	8.62	8.57

Differences of D.O. Content between Wrinkler Titration and D.O. meter should be less than 0.4 mg/L

**C. Temperature calibration**

Thermometer reading, °C	Meter reading, °C
21.8	21.55

Certified by :   
Approved Signatory : CHAN Hoi Yan, Winnie  
Assistant Manager

Date : 1/4/2019  
\*\* End of Report \*\*

Note : This report refers only to the sample(s) tested.

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# MaterialLab

Report No. : 142626WA191408(1)A



Page 1 of 3

## Report on Calibration of YSI 69201V2-M Multi-parameter Water Quality Meter

### Information Supplied by Client

Client : Fugro Technical Services Limited (MCL)  
Client's address : Rm. 723-726, 7/F, Profit Industrial Building, No. 1-15,  
Kwai Fung Crescent, Kwai Chung, N.T.  
Sample description : One YSI 69201V2-M Multi-parameter Water Quality Meter  
Client sample ID : Serial No. 14A102907  
Test required : Calibration of the YSI 69201V2-M Multi-parameter Water Quality  
Meter

### Laboratory Information

Lab. sample ID : WA191408/2  
Date sample received : 21/06/2019  
Date of calibration : 28/06/2019  
Next calibration date : 27/09/2019  
Test method used : In-house comparison method

*Note : This report refers only to the sample(s) tested.*

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# MaterialLab

Report No. : 142626WA191408(1)A

Page 2 of 3

## Results :

### A. Salinity calibration

Salinity, ppt			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
10	10.2	+0.2	± 0.5
20	20.9	+0.9	± 1.0
30	30.0	0.0	± 1.5
40	40.5	+0.5	± 2.0

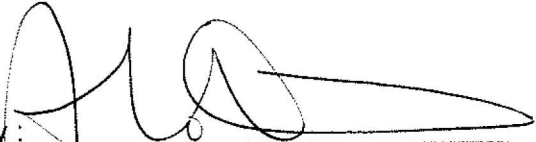
### B. Dissolved Oxygen calibration

Trial No.	Dissolved oxygen content, mg/L	
	By Titration	By D.O. meter
1	8.04	7.85
2	8.11	8.28
3	8.14	8.27
Average	8.10	8.13

Differences of D.O. Content between Wrinkler Titration and D.O. meter should be less than 0.2 mg/L

Remark : This report is to supersede our former report #142626WA191408(1).

Certified by :

  
Approved Signatory : HO Kin Man, John  
Assistant General Manager – Laboratories

Date :

6/8/2019

Note : This report refers only to the sample(s) tested.



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# MaterialLab

Report No. : 142626WA191408(1)A

Page 3 of 3

## Results :

### C. Temperature calibration

Thermometer reading, °C	Meter reading, °C
23.5	23.38

### D. Turbidity calibration

Turbidity, N.T.U.			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
0	0.0	0.0	± 0.5
4	4.5	+0.5	± 0.6
8	7.7	-0.3	± 0.8
40	40.7	+0.7	± 3.0
80	80.4	+0.4	± 4.0

Remark : This report is to supersede our former report #142626WA191408(1).

Certified by :

  
Approved Signatory : HO Kin Man, John  
Assistant General Manager – Laboratories

Date

:

6/8/2019

\*\* End of Report \*\*

Note : This report refers only to the sample(s) tested.

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Report No.: 0394/13/ED/0371

Calibration Certificate  
24-hr Monitoring – Micromac 1000





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Report No.: 0394/13/ED/0380A

### Appendix E Schedules for Routine Impact Water Quality Monitoring

Water Quality Monitoring Schedule (Present Reporting Period)

Sun	Mon	Tue	Wed	Thur	Fri	Sat
23 June 2019	24	25 Routine WQM Mid-Flood (11:05) Mid-Ebb (17:40)	26	27 Routine WQM Mid-Ebb (08:41) Mid-Flood (13:57)	28	29 Routine WQM Mid-Ebb (09:58) Mid-Flood (16:20)
30	1 July 2019	2 Routine WQM Mid-Ebb (11:58) Mid-Flood (18:33)	3	4 Routine WQM Mid-Flood (06:33) Mid-Ebb (13:30)	5	6 Routine WQM Mid-Ebb (08:13) Mid-Flood (15:08)
7	8	9 Routine WQM Mid-Flood (11:18) Mid-Ebb (18:02)	10	11 Routine WQM Mid-Ebb (08:11) Mid-Flood (14:23)	12	13 Routine WQM Mid-Ebb (10:05) Mid-Flood (16:54)
14	15	16 Routine WQM Mid-Flood (05:16) Mid-Ebb (12:10)	17	18 Routine WQM Mid-Flood (06:25) Mid-Ebb (13:24)	19	20 Routine WQM Mid-Flood (07:41) Mid-Ebb (14:30)
21	22					

**Remarks**

1. According to the approved proposal (0394\_13\_ED\_0332I), routine impact water quality monitoring locations are SR2, SR3, SR4, SR5, SR12, SR13, G2, C1A and C2A.

Water Quality Monitoring Schedule (Next Reporting Period)

Sun	Mon	Tue	Wed	Thur	Fri	Sat
		23 July 2019 Routine WQM Mid-Flood (09:41) Mid-Ebb (16:10)	24	25 Routine WQM Mid-Ebb (06:28) Mid-Flood (11:59)	26	27 Routine WQM Mid-Ebb (08:26) Mid-Flood (14:50)
28	29	30 Routine WQM Mid-Ebb (10:53) Mid-Flood (18:00)	31	1 August 2019 Routine WQM Mid-Flood (05:33) Mid-Ebb (12:29)	2	3 Routine WQM Mid-Flood (07:18) Mid-Ebb (14:02)
4	5	6 Routine WQM Mid-Flood (09:59) Mid-Ebb (16:26)	7	8 Routine WQM Mid-Ebb (06:29) Mid-Flood (12:49)	9	10 Routine WQM Mid-Ebb (08:56) Mid-Flood (16:04)
11	12	13 Routine WQM Mid-Ebb (11:16) Mid-Flood (18:35)	14	15 Routine WQM Mid-Flood (05:32) Mid-Ebb (12:27)	16	17 Routine WQM Mid-Flood (06:51) Mid-Ebb (13:30)
18	19	20 Routine WQM Mid-Flood (08:48) Mid-Ebb (15:06)	21	22 Routine WQM Mid-Flood (10:22) Mid-Ebb (16:20)		

**Remarks**

1. Actual monitoring will be subjected to change due to any safety concern or adverse weather condition.
2. According to the approved proposal (0394\_13\_ED\_0332I), routine impact water quality monitoring locations are SR2, SR3, SR4, SR5, SR12, SR13, G2, C1A and C2A.

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Report No.: 0394/13/ED/0380A

### Appendix F

#### Water Quality Monitoring Results and Graphical Presentation – Routine Impact Monitoring



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																									
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)		
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	S	1	1	8.08	8.08	25.03	25.05	28.00	28.01	83.3	83.2	5.70	5.68	5.69	1.4	1.5	2.4	0.25	0.26	0.26	0.016	0.017	0.017	0.25	0.41	0.03	0.69	0.70	
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	S	1	3	8.07	8.07	25.06	25.05	28.01	28.01	83.0	83.2	5.68	5.69	5.69	1.6	1.5	2.4	0.26	0.26	0.26	0.017	0.017	0.017	0.26	0.41	0.03	0.70	0.70	
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	M	14	1	8.07	8.07	25.49	25.51	27.82	27.82	76.5	76.4	5.23	5.22	5.22	2.2	2.4	2.4	0.27	0.27	0.27	0.017	0.017	0.017	0.27	0.43	0.03	0.73	0.73	
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	M	14	2	8.07	8.07	25.52	25.51	27.81	27.82	76.3	76.4	5.21	5.22	5.22	2.5	2.4	2.4	0.27	0.27	0.27	0.017	0.017	0.017	0.27	0.43	0.03	0.73	0.73	
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	M	14	3	8.07	8.07	25.49	25.51	27.82	27.82	76.5	76.4	5.23	5.22	5.22	2.2	2.4	2.4	0.27	0.27	0.27	0.017	0.017	0.017	0.27	0.42	0.03	0.72	0.72	
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	B	27	1	8.09	8.09	25.89	25.91	27.69	27.70	68.6	68.5	4.69	4.68	4.68	3.3	3.4	3.4	0.28	0.28	0.28	0.018	0.018	0.018	0.28	0.46	0.03	0.77	0.77	
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	B	27	2	8.08	8.09	25.93	25.91	27.70	27.70	68.3	68.5	4.67	4.68	4.68	3.4	3.4	3.4	0.29	0.29	0.29	0.019	0.019	0.019	0.29	0.46	0.03	0.78	0.77	
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	B	27	3	8.08	8.09	25.93	25.91	27.70	27.70	68.3	68.5	4.67	4.68	4.68	3.4	3.4	3.4	0.29	0.29	0.29	0.019	0.019	0.019	0.29	0.45	0.03	0.77	0.77	
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	S	1	1	7.96	7.96	24.55	24.56	27.78	27.78	79.6	79.8	5.45	5.46	5.46	1.2	1.3	2.0	0.22	0.23	0.23	0.011	0.012	0.011	0.22	0.45	0.03	0.70	0.71	
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	S	1	2	7.96	7.96	24.56	24.56	27.78	27.78	80.0	79.8	5.47	5.46	5.46	1.4	1.3	2.0	0.23	0.23	0.23	0.012	0.012	0.011	0.23	0.45	0.03	0.71	0.71	
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	S	1	3	7.96	7.96	24.56	24.56	27.78	27.78	80.0	79.8	5.47	5.46	5.46	1.4	1.3	2.0	0.23	0.23	0.23	0.012	0.012	0.011	0.22	0.45	0.03	0.70	0.71	
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	M	6.5	1	7.97	7.98	24.79	24.81	27.72	27.73	73.2	73.3	5.01	5.02	5.02	2.0	2.1	2.1	0.25	0.25	0.25	0.013	0.013	0.013	0.25	0.46	0.03	0.74	0.75	
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	M	6.5	2	7.98	7.98	24.82	24.81	27.73	27.73	73.4	73.3	5.02	5.02	5.02	2.1	2.1	2.1	0.24	0.24	0.25	0.012	0.012	0.013	0.24	0.46	0.03	0.73	0.75	
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	M	6.5	3	7.98	7.98	24.82	24.81	27.73	27.73	73.4	73.3	5.02	5.02	5.02	2.1	2.1	2.1	0.24	0.24	0.25	0.012	0.012	0.013	0.25	0.45	0.03	0.73	0.75	
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	B	12	1	8.00	8.00	25.12	25.14	27.66	27.66	67.7	67.8	4.64	4.65	4.65	2.7	2.6	2.6	0.29	0.29	0.29	0.016	0.016	0.016	0.29	0.46	0.03	0.78	0.80	
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	B	12	2	7.99	8.00	25.16	25.14	27.65	27.66	67.8	67.8	4.65	4.65	4.65	2.5	2.6	2.6	0.31	0.31	0.30	0.017	0.017	0.016	0.31	0.47	0.03	0.81	0.80	
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	B	12	3	7.99	8.00	25.16	25.14	27.65	27.66	67.8	67.8	4.65	4.65	4.65	2.5	2.6	2.6	0.31	0.31	0.30	0.017	0.017	0.016	0.31	0.47	0.03	0.81	0.80	
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	S	1	1	8.12	8.12	23.46	23.48	28.43	28.43	86.3	86.5	6.10	6.12	6.12	2.3	2.2	2.2	NA	NA	NA	NA	NA	NA	0.12	0.78	0.04	0.94	0.96	
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	S	1	2	8.11	8.12	23.49	23.48	28.42	28.43	86.7	86.5	6.13	6.12	6.12	2.1	2.2	2.2	NA	NA	NA	NA	NA	NA	0.14	0.79	0.04	0.97	0.96	
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	S	1	3	8.11	8.12	23.49	23.48	28.42	28.43	86.7	86.5	6.13	6.12	6.12	2.1	2.2	2.2	NA	NA	NA	NA	NA	NA	0.13	0.79	0.04	0.96	0.96	
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	M	6	1	8.13	8.13	23.73	23.72	28.35	28.36	80.4	80.2	5.68	5.66	5.66	2.6	2.7	2.7	NA	NA	NA	NA	NA	NA	0.15	0.81	0.04	1.00	1.01	
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	M	6	2	8.12	8.13	23.70	23.72	28.36	28.36	79.9	80.2	5.64	5.66	5.66	2.7	2.7	2.7	NA	NA	NA	NA	NA	NA	0.16	0.81	0.04	1.01	1.01	
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	M	6	3	8.12	8.13	23.70	23.72	28.36	28.36	79.9	80.2	5.64	5.66	5.66	2.7	2.7	2.7	NA	NA	NA	NA	NA	NA	0.15	0.82	0.04	1.01	1.01	
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	B	11	1	8.13	8.13	23.99	24.01	28.22	28.22	73.6	73.5	5.20	5.20	5.20	3.4	3.5	3.5	NA	NA	NA	NA	NA	NA	0.14	0.84	0.05	1.03	1.03	
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	B	11	2	8.13	8.13	24.03	24.01	28.22	28.22	73.4	73.5	5.19	5.20	5.20	3.6	3.5	3.5	NA	NA	NA	NA	NA	NA	0.13	0.84	0.05	1.02	1.03	
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	B	11	3	8.13	8.13	24.03	24.01	28.22	28.22	73.4	73.5	5.19	5.20	5.20	3.6	3.5	3.5	NA	NA	NA	NA	NA	NA	0.14	0.85	0.05	1.04	1.03	
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	S	1	1	8.07	8.08	22.37	22.35	28.82	28.82	90.6	90.5	6.47	6.46	6.46	1.6	1.7	2.5	0.10	0.12	0.11	0.007	0.008	0.008	NA	NA	NA	NA	NA	
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	S	1	2	8.08	8.08	22.32	22.35	28.81	28.82	90.3	90.5	6.45	6.46	6.46	1.8	1.7	2.5	0.12	0.12	0.11	0.008	0.008	0.008	NA	NA	NA	NA	NA	
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	S	1	3	8.08	8.08	22.32	22.35	28.81	28.82	90.3	90.5	6.45	6.46	6.46	1.8	1.7	2.5	0.12	0.12	0.11	0.008	0.008	0.008	NA	NA	NA	NA	NA	
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	M	4.5	1	8.09	8.09	22.64	22.66	28.76	28.75	86.3	86.2	6.16	6.15	6.15	2.7	2.6	2.5	0.13	0.13	0.13	0.009	0.009	0.009	NA	NA	NA	NA	NA	
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	M	4.5	2	8.08	8.09	22.68	22.66	28.74	28.75	86.0	86.2	6.14	6.15	6.15	2.5	2.6	2.5	0.13	0.13	0.13	0.009	0.009	0.009	NA	NA	NA	NA	NA	
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	M	4.5	3	8.08	8.09	22.68	22.66	28.74	28.75	86.0	86.2	6.14	6.15	6.15	2.5	2.6	2.5	0.13	0.13	0.13	0.009	0.009	0.009	NA	NA	NA	NA	NA	
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	B	8	1	8.10	8.11	22.93	22.95	28.68	28.69	80.4	80.3	5.74	5.73	5.73	3.3	3.2	3.2	0.15	0.15	0.15	0.011	0.011	0.011	NA	NA	NA	NA	NA	
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	B	8	2	8.11	8.11	22.97	22.95	28.69	28.69	80.2	80.3	5.72	5.73	5.73	3.1	3.2	3.2	0.15	0.15	0.15	0.011	0.011	0.011	NA	NA	NA	NA	NA	
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	B	8	3	8.11	8.11	22.97	22.95	28.69	28.69	80.2	80.3	5.72	5.73	5.73	3.1	3.2	3.2	0.15	0.15	0.15									



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	S	1	1	3	0.24			0.016			0.24	0.40	0.03	0.67				390			NA			<1			
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	S	1	2	2	0.24	0.24		0.016	0.016		0.24	0.42	0.03	0.69	0.67			360	375		NA	NA		<1	1		
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	S	1	3							0.25	0.36	0.03	0.64								NA	NA					
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	M	14	1	2	0.25			0.016			0.25	0.36	0.03	0.64	0.68			370	211	229	NA	NA		<1			
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	M	14	2	2	0.26	0.26		0.017	0.016		0.26	0.43	0.03	0.72							NA	NA		<1	1	1	
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	M	14	3							0.26	0.38	0.03	0.67								NA	NA		<1			
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	B	27	1	2	0.25			0.016			0.25	0.45	0.03	0.73							NA	NA		<1			
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	B	27	2	2	0.25	0.25		0.016	0.016		0.25	0.36	0.03	0.64	0.67			210	152		NA	NA		<1	1		
C1A	25/6/2019	Mid-Flood	Cloudy	Moderate	13:38	28	B	27	3							0.25	0.37	0.03	0.65								NA	NA		<1			
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	S	1	1	2	0.26			0.013			0.26	0.44	0.03	0.73	0.71			210			NA	NA		<1			
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	S	1	2	2	0.27	0.27		0.014	0.013		0.27	0.38	0.03	0.68				220	215		NA	NA		<1	1		
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	S	1	3							0.26	0.44	0.03	0.73								NA	NA					
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	M	6.5	1	3	0.26			0.013			0.26	0.44	0.03	0.73	0.69			210			NA	NA		1			
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	M	6.5	2	2	0.26	0.26	0.26	0.013	0.013	0.014	0.26	0.36	0.03	0.65				150	177	143	NA	NA	NA	<1	1	1	
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	M	6.5	3							0.26	0.39	0.03	0.68								NA	NA		<1			
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	B	12	1	2	0.27			0.015			0.27	0.44	0.03	0.74	0.70			50			NA	NA		<1			
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	B	12	2	3	0.26	0.27		0.014	0.014		0.26	0.37	0.03	0.66				120	77		NA	NA		<1	1		
C2A	25/6/2019	Mid-Flood	Cloudy	Moderate	11:02	13	B	12	3							0.26	0.40	0.03	0.69								NA	NA		<1			
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	S	1	1	2	NA			NA			0.10	0.79	0.04	0.93	0.96						NA	NA		NA			
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	S	1	2	2	NA	NA		NA	NA		0.13	0.90	0.04	1.07							NA	NA		NA	NA		
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	S	1	3							0.10	0.74	0.04	0.88								NA	NA		NA	NA		
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	M	6	1	2	NA			NA			0.11	0.81	0.04	0.96	0.98						NA	NA		NA	NA		
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	M	6	2	2	NA	NA	NA	NA	NA		0.10	0.92	0.04	1.06							NA	NA		NA	NA		
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	M	6	3							0.11	0.78	0.04	0.93								NA	NA		NA	NA		
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	B	11	1	2	NA			NA			0.11	0.92	0.04	1.07	1.02						NA	NA		NA	NA		
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	B	11	2	3	NA	NA		NA	NA		0.09	0.92	0.04	1.05							NA	NA		NA	NA		
G2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:35	12	B	11	3							0.09	0.80	0.04	0.93								NA	NA		NA	NA		
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	S	1	1	2	0.12			0.008			NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	S	1	2	3	0.10	0.11		0.007	0.008		NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	S	1	3							NA	NA	NA	NA	NA							NA	NA		NA	NA		
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	M	4.5	1	2	0.10			0.007			NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	M	4.5	2	2	0.10	0.10	0.11	0.007	0.007	0.008	NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	M	4.5	3							NA	NA	NA	NA	NA							NA	NA		NA	NA		
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	B	8	1	3	0.10			0.007			NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	B	8	2	2	0.11	0.11		0.008	0.008		NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR2	25/6/2019	Mid-Flood	Cloudy	Moderate	12:54	9	B	8	3							NA	NA	NA	NA	NA							NA	NA		NA	NA		
SR3	25/6/2019	Mid-Flood	Cloudy	Moderate	12:16	8	S	1	1	2	0.09			0.006			NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR3	25/6/2019	Mid-Flood	Cloudy	Moderate	12:16	8	S	1	2	2	0.10	0.10		0.007	0.007		NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR3	25/6/2019	Mid-Flood	Cloudy	Moderate	12:16	8	S	1	3							NA	NA	NA	NA	NA							NA	NA		NA	NA		
SR3	25/6/2019	Mid-Flood	Cloudy	Moderate	12:16	8	M	4	1	2	0.10			0.007			NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR3	25/6/2019	Mid-Flood	Cloudy	Moderate	12:16	8	M	4	2	2	0.10	0.10	0.10	0.007	0.007	0.007	NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR3	25/6/2019	Mid-Flood	Cloudy	Moderate	12:16	8	M	4	3							NA	NA	NA	NA	NA							NA	NA		NA	NA		
SR3	25/6/2019	Mid-Flood	Cloudy	Moderate	12:16	8	B	7	1	2	0.10			0.007			NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR3	25/6/2019	Mid-Flood	Cloudy	Moderate	12:16	8	B	7	2	2	0.09	0.10		0.007	0.007		NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR3	25/6/2019	Mid-Flood	Cloudy	Moderate	12:16	8	B	7	3							NA	NA	NA	NA	NA							NA	NA		NA	NA		



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																									
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)		
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	S	1	1	8.09	8.09	25.16	25.18	27.93	27.93	85.5	85.4	5.82	5.81	1.6	1.6	0.24	0.22	0.016	0.015	0.019	0.26	0.36	0.03	0.65	0.66				
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	S	1	2	8.08	8.09	25.19	25.18	27.92	27.93	85.2	85.4	5.80	5.81	1.5	1.6	0.20	0.22	0.013	0.015	0.019	0.27	0.37	0.03	0.67	0.66				
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	S	1	3																	0.26	0.37	0.03	0.66						
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	M	14	1	8.07	8.08	25.63	25.62	27.77	27.77	79.6	79.4	5.41	5.40	2.8	2.7	0.30	0.30	0.019	0.019	0.019	0.25	0.38	0.05	0.68	0.68				
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	M	14	2	8.08	8.08	25.60	25.62	27.77	27.77	79.2	79.4	5.38	5.40	2.6	2.7	0.30	0.30	0.019	0.019	0.019	0.25	0.38	0.05	0.68	0.68				
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	M	14	3																	0.25	0.39	0.05	0.69						
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	B	27	1	8.08	8.08	25.93	25.92	27.46	27.47	70.3	70.5	4.81	4.82	3.6	3.6	0.41	0.35	0.026	0.022	0.018	0.26	0.41	0.07	0.74	0.75				
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	B	27	2	8.08	8.08	25.91	25.92	27.47	27.47	70.6	70.5	4.83	4.82	3.5	3.6	0.29	0.35	0.018	0.022	0.018	0.27	0.41	0.07	0.75	0.75				
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	B	27	3																	0.27	0.41	0.07	0.75						
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	S	1	1	8.02	8.03	24.23	24.25	27.96	27.96	81.8	82.0	5.58	5.59	1.4	1.4	0.25	0.25	0.015	0.014	0.014	0.26	0.41	0.05	0.72	0.74				
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	S	1	2	8.03	8.03	24.26	24.25	27.95	27.96	82.1	82.0	5.60	5.59	1.3	1.4	0.24	0.25	0.014	0.014	0.014	0.28	0.42	0.05	0.75	0.74				
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	S	1	3																	0.28	0.43	0.05	0.76						
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	M	6.5	1	8.03	8.04	24.69	24.71	27.88	27.88	74.2	74.0	5.06	5.05	1.9	2.0	0.41	0.35	0.024	0.021	0.017	0.27	0.43	0.06	0.76	0.77				
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	M	6.5	2	8.04	8.04	24.72	24.71	27.88	27.88	73.8	74.0	5.03	5.05	2.1	2.0	0.28	0.35	0.017	0.021	0.017	0.28	0.44	0.06	0.78	0.78				
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	M	6.5	3																	0.29	0.45	0.06	0.80						
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	B	12	1	8.06	8.06	25.01	25.03	27.81	27.81	69.0	68.9	4.70	4.70	2.8	2.8	0.25	0.25	0.015	0.015	0.015	0.28	0.43	0.07	0.78	0.79				
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	B	12	2	8.05	8.06	25.04	25.03	27.80	27.81	68.8	68.9	4.69	4.70	2.7	2.8	0.25	0.25	0.015	0.015	0.015	0.28	0.44	0.06	0.78	0.79				
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	B	12	3																	0.28	0.45	0.07	0.80						
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	S	1	1	8.14	8.15	23.97	23.96	28.20	28.20	88.2	88.1	6.16	6.15	2.2	2.1	NA	NA	NA	NA	NA	0.11	0.85	0.05	1.01	1.01				
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	S	1	2	8.15	8.15	23.94	23.96	28.20	28.20	88.0	88.1	6.14	6.15	2.0	2.1	NA	NA	NA	NA	NA	0.12	0.84	0.05	1.01	1.01				
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	S	1	3																	0.11	0.85	0.05	1.01						
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	M	6	1	8.15	8.13	24.21	24.24	28.13	28.14	82.1	82.0	5.74	5.73	2.9	2.8	NA	NA	NA	NA	NA	0.13	0.85	0.05	1.03	1.03				
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	M	6	2	8.10	8.13	24.26	24.24	28.14	28.14	81.9	82.0	5.72	5.73	2.6	2.8	NA	NA	NA	NA	NA	0.12	0.86	0.05	1.04	1.04				
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	M	6	3																	0.12	0.86	0.05	1.04						
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	B	11	1	8.17	8.18	24.48	24.49	28.02	28.03	76.4	76.4	5.34	5.34	3.3	3.5	NA	NA	NA	NA	NA	0.14	0.87	0.07	1.08	1.09				
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	B	11	2	8.18	8.18	24.50	24.49	28.03	28.03	76.3	76.4	5.33	5.34	3.6	3.5	NA	NA	NA	NA	NA	0.14	0.88	0.07	1.09	1.09				
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	B	11	3																	0.15	0.88	0.07	1.10						
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	S	1	1	8.11	8.11	22.56	22.58	28.13	28.13	92.3	92.2	6.45	6.44	1.6	1.6	0.13	0.13	0.009	0.009	0.009	NA	NA	NA	NA	NA				
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	S	1	2	8.10	8.11	22.59	22.58	28.12	28.13	92.1	92.2	6.43	6.44	1.5	1.6	0.12	0.13	0.009	0.009	0.009	NA	NA	NA	NA	NA				
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	S	1	3																	NA	NA	NA	NA	NA					
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	M	4.5	1	8.12	8.12	22.73	22.72	27.99	28.00	87.6	87.4	6.12	6.11	2.2	2.1	0.13	0.14	0.010	0.010	0.010	NA	NA	NA	NA	NA				
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	M	4.5	2	8.12	8.12	22.71	22.72	28.00	28.00	87.2	87.4	6.09	6.11	2.0	2.1	0.14	0.14	0.010	0.010	0.010	NA	NA	NA	NA	NA				
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	M	4.5	3																	NA	NA	NA	NA	NA					
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	B	8	1	8.13	8.13	22.94	22.93	27.90	27.91	82.3	82.4	5.75	5.76	2.7	2.8	0.12	0.12	0.009	0.009	0.009	NA	NA	NA	NA	NA				
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	B	8	2	8.12	8.13	22.91	22.93	27.91	27.91	82.5	82.4	5.76	5.76	2.8	2.8	0.12	0.12	0.009	0.009	0.009	NA	NA	NA	NA	NA				
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	B	8	3																	NA	NA	NA	NA	NA					
SR3	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:13	8	S	1	1	8.12	8.12	20.03	20.05	27.93	27.93	88.8	88.7	6.20	6.20	1.2	1.4	0.13	0.14	0.010	0.010	0.010	NA	NA	NA	NA	NA				
SR3	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:13	8	S	1	2	8.11	8.12	20.06	20.05	27.93	27.93	88.6	88.7	6.19	6.20	1.5	1.4	0.14	0.14	0.010	0.010	0.010	NA	NA	NA	NA	NA				
SR3	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:13	8	S	1	3																	NA	NA	NA	NA	NA					
SR3	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:13	8	M	4	1	8.12	8.12	20.37	20.36	28.06	28.06	83.1	83.0	5.81	5.80	2.6	2.6	0.10	0.11	0.007	0.008	0.008	NA	NA	NA	NA	NA				
SR3	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:13	8	M	4	2	8.12	8.12	20.34	20.36	28.05	28.06	82.8	83.0	5.79	5.80	2.5	2.6	0.11	0.11	0.008	0.008	0.008	NA	NA	NA	NA	NA				
SR3	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:13	8	M	4	3																	NA	NA	NA	NA	NA					
SR3	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:13	8	B	7	1	8.12	8																								



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	S	1	1	3	0.25			0.017			0.25	0.36	0.04	0.65				310			NA			<1			
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	S	1	2	2	0.25	0.25		0.017	0.017		0.25	0.47	0.03	0.75	0.70			320	315		NA	NA		<1	1		
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	S	1	3							0.25	0.43	0.03	0.71								NA	NA					
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	M	14	1	3	0.26			0.017			0.26	0.40	0.03	0.69	0.69			210			NA	NA		<1			
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	M	14	2	3	0.24	0.25		0.016	0.016		0.24	0.40	0.03	0.67				230	220		NA	NA		<1	1	1	
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	M	14	3							0.25	0.44	0.03	0.72								NA	NA		<1			
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	B	27	1	3	0.25			0.016			0.25	0.41	0.03	0.69	0.72			290			NA	NA		<1			
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	B	27	2	3	0.25	0.25		0.016	0.016		0.25	0.47	0.03	0.75	0.72			260	275		NA	NA		<1	1		
C1A	25/6/2019	Mid-Ebb	Cloudy	Moderate	13:55	28	B	27	3							0.25	0.43	0.03	0.71								NA	NA		<1			
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	S	1	1	3	0.25			0.015			0.25	0.40	0.03	0.68	0.73			200			NA	NA		<1			
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	S	1	2	3	0.28	0.27		0.016	0.016		0.28	0.46	0.03	0.77				110	148		NA	NA		<1	1		
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	S	1	3							0.26	0.45	0.03	0.74								NA	NA		<1			
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	M	6.5	1	3	0.25			0.015			0.25	0.39	0.03	0.67	0.70			110			NA	NA		<1			
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	M	6.5	2	3	0.24	0.25	0.26	0.014	0.015	0.015	0.24	0.47	0.03	0.74	0.70	0.72		47	72	120	NA	NA	NA	<1	1	1	
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	M	6.5	3							0.26	0.40	0.03	0.69								NA	NA		<1			
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	B	12	1	3	0.26			0.016			0.26	0.42	0.03	0.71	0.72			130			NA	NA		<1			
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	B	12	2	3	0.25	0.26		0.015	0.016		0.25	0.47	0.03	0.75				200	161		NA	NA		<1	1		
C2A	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:25	13	B	12	3							0.26	0.41	0.03	0.70								NA	NA		<1			
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	S	1	1	3	NA			NA			0.10	0.85	0.04	0.99	0.97						NA	NA		NA	NA		
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	S	1	2	3	NA	NA		NA	NA		0.10	0.80	0.04	0.94							NA	NA		NA	NA		
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	S	1	3							0.09	0.84	0.04	0.97								NA	NA		NA	NA		
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	M	6	1	3	NA			NA			0.11	0.91	0.04	1.06	1.01						NA	NA		NA	NA		
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	M	6	2	3	NA	NA	NA	NA	NA		0.10	0.83	0.04	0.97							NA	NA		NA	NA		
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	M	6	3							0.11	0.84	0.04	0.99								NA	NA		NA	NA		
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	B	11	1	3	NA			NA			0.09	0.91	0.04	1.04	1.04						NA	NA		NA	NA		
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	B	11	2	3	NA	NA		NA	NA		0.10	0.83	0.04	0.97							NA	NA		NA	NA		
G2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:55	12	B	11	3							0.11	0.95	0.04	1.10								NA	NA		NA	NA		
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	S	1	1	4	0.11			0.008			NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	S	1	2	3	0.10	0.11		0.007	0.008		NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	S	1	3							NA	NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	M	4.5	1	4	0.08			0.006			NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	M	4.5	2	3	0.10	0.09	0.10	0.007	0.007		NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	M	4.5	3							NA	NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	B	8	1	4	0.10			0.007			NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	B	8	2	4	0.09	0.10		0.007	0.007		NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR2	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:34	9	B	8	3							NA	NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR3	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:13	8	S	1	1	3	0.11			0.008			NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR3	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:13	8	S	1	2	3	0.07	0.09		0.005	0.007		NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR3	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:13	8	S	1	3							NA	NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR3	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:13	8	M	4	1	2	0.10			0.007			NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR3	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:13	8	M	4	2	3	0.11	0.11	0.10	0.008	0.008	0.008	NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR3	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:13	8	M	4	3							NA	NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR3	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:13	8	B	7	1	2	0.12			0.009			NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR3	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:13	8	B	7	2	3	0.11	0.12		0.008	0.009		NA	NA	NA	NA	NA						NA	NA		NA	NA		
SR3	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:13	8	B	7	3							NA	NA	NA	NA	NA	NA						NA	NA		NA	NA		

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:30	4	S	1	1	3	0.11	0.11	0.11	0.009	0.008	0.008	NA	NA	NA	NA	NA	300	315	315	NA	NA	NA	<1	1	1			
SR4	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:30	4	S	1	2	3	0.10	0.11	0.11	0.008	0.008	0.008	NA	NA	NA	NA	NA	330	315	315	NA	NA	NA	<1	1	1			
SR4	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:30	4	S	1	3	3	0.11	0.11	0.11	0.008	0.008	0.008	NA	NA	NA	NA	NA	330	315	315	NA	NA	NA	<1	1	1			
SR4	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:30	4	M	1	1	1	0.11	0.11	0.11	0.009	0.009	0.009	NA	NA	NA	NA	NA	291	291	291	NA	NA	NA	<1	1	1			
SR4	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:30	4	M	2	2	2	0.11	0.11	0.11	0.009	0.009	0.009	NA	NA	NA	NA	NA	291	291	291	NA	NA	NA	<1	1	1			
SR4	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:30	4	M	3	3	3	0.11	0.11	0.11	0.009	0.009	0.009	NA	NA	NA	NA	NA	291	291	291	NA	NA	NA	<1	1	1			
SR4	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:30	4	B	3	1	3	0.12	0.12	0.12	0.009	0.009	0.009	NA	NA	NA	NA	NA	400	268	268	NA	NA	NA	<1	1	1			
SR4	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:30	4	B	3	2	3	0.12	0.12	0.12	0.009	0.009	0.009	NA	NA	NA	NA	NA	400	268	268	NA	NA	NA	<1	1	1			
SR4	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:30	4	B	3	3	3	0.12	0.12	0.12	0.009	0.009	0.009	NA	NA	NA	NA	NA	400	268	268	NA	NA	NA	<1	1	1			
SR5	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:14	11	S	1	1	3	NA	NA	NA	NA	NA	NA	0.10	0.90	0.04	1.04	1.01	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:14	11	S	1	2	2	NA	NA	NA	NA	NA	NA	0.10	0.80	0.04	0.94	1.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:14	11	S	1	3	3	NA	NA	NA	NA	NA	NA	0.09	0.93	0.04	1.06	1.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:14	11	M	5.5	1	3	NA	NA	NA	NA	NA	NA	0.09	0.83	0.04	0.96	0.96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:14	11	M	5.5	2	3	NA	NA	NA	NA	NA	NA	0.08	0.83	0.04	0.95	1.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:14	11	M	5.5	3	3	NA	NA	NA	NA	NA	NA	0.10	0.83	0.04	0.97	1.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:14	11	B	10	1	3	NA	NA	NA	NA	NA	NA	0.10	0.90	0.04	1.04	1.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:14	11	B	10	2	3	NA	NA	NA	NA	NA	NA	0.10	0.83	0.04	0.97	1.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	25/6/2019	Mid-Ebb	Cloudy	Moderate	14:14	11	B	10	3	3	NA	NA	NA	NA	NA	NA	0.10	0.92	0.04	1.06	1.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR12	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:45	15	S	1	1	2	0.12	0.12	0.12	0.007	0.007	0.007	NA	NA	NA	NA	NA	240	190	190	NA	NA	NA	<1	1	1			
SR12	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:45	15	S	1	2	3	0.12	0.12	0.12	0.007	0.007	0.007	NA	NA	NA	NA	NA	150	190	190	NA	NA	NA	<1	1	1			
SR12	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:45	15	S	1	3	3	0.12	0.12	0.12	0.007	0.007	0.007	NA	NA	NA	NA	NA	270	270	270	NA	NA	NA	<1	1	1			
SR12	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:45	15	M	7.5	1	3	0.10	0.11	0.12	0.006	0.006	0.007	NA	NA	NA	NA	NA	270	270	270	NA	NA	NA	<1	1	1			
SR12	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:45	15	M	7.5	2	3	0.12	0.11	0.12	0.007	0.006	0.007	NA	NA	NA	NA	NA	270	270	270	NA	NA	NA	<1	1	1			
SR12	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:45	15	M	7.5	3	3	0.12	0.11	0.12	0.007	0.006	0.007	NA	NA	NA	NA	NA	270	270	270	NA	NA	NA	<1	1	1			
SR12	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:45	15	B	14	1	2	0.12	0.12	0.12	0.007	0.007	0.007	NA	NA	NA	NA	NA	260	239	239	NA	NA	NA	<1	1	1			
SR12	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:45	15	B	14	2	3	0.12	0.12	0.12	0.007	0.007	0.007	NA	NA	NA	NA	NA	220	239	239	NA	NA	NA	<1	1	1			
SR12	25/6/2019	Mid-Ebb	Cloudy	Moderate	15:45	15	B	14	3	3	0.12	0.12	0.12	0.007	0.007	0.007	NA	NA	NA	NA	NA	220	239	239	NA	NA	NA	<1	1	1			
SR13	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:03	14	S	1	1	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:03	14	S	1	2	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:03	14	S	1	3	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:03	14	M	7	1	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:03	14	M	7	2	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:03	14	M	7	3	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:03	14	B	13	1	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:03	14	B	13	2	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:03	14	B	13	3	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	25/6/2019	Mid-Ebb	Cloudy	Moderate	16:03	14	B	13	3	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																									
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)		
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	S	1	1	8.18	13.12	13.14	29.18	29.18	89.7	89.7	6.44	6.44	6.44	4.4	4.4	0.08	0.08	0.08	0.08	0.08	0.10	0.03	0.21	0.21	0.23				
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	S	1	2	8.18	13.14	13.13	29.18	29.18	89.7	89.7	6.44	6.44	6.44	4.5	4.5	0.09	0.09	0.009	0.008	0.008	0.09	0.11	0.03	0.23	0.22	0.23			
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	S	1	3																										
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	M	14	1	8.05	29.64	29.64	26.22	26.22	89.4	89.4	6.42	6.42	6.49	2.5	2.5	0.10	0.11	0.005	0.006	0.006	0.10	0.09	0.03	0.22	0.22	0.23			
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	M	14	2	8.05	29.63	29.64	26.22	26.22	90.3	89.9	6.55	6.49																	
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	M	14	3																										
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	B	27	1	8.06	31.45	31.45	25.78	25.77	63.5	61.8	4.56	4.40																	
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	B	27	2	8.06	31.44	31.45	25.76	25.77	60.1	61.8	4.24	4.40																	
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	B	27	3																										
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	S	1	1	8.08	25.13	25.12	28.14	28.15	90.7	90.9	6.51	6.53																	
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	S	1	2	8.08	25.11	25.12	28.16	28.15	91.1	90.9	6.54	6.53																	
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	S	1	3																										
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	M	6.5	1	8.06	27.62	27.62	26.92	26.93	88.4	90.5	6.35	6.50																	
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	M	6.5	2	8.06	27.61	27.62	26.93	26.93	92.6	90.5	6.65	6.50																	
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	M	6.5	3																										
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	B	12	1	8.06	32.58	32.58	25.35	25.34	64.8	63.3	4.65	4.55																	
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	B	12	2	8.06	32.58	32.58	25.33	25.34	61.8	63.3	4.44	4.55																	
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	B	12	3																										
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	S	1	1	8.15	19.16	19.17	28.42	28.43	76.2	76.2	5.37	5.37																	
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	S	1	2	8.15	19.17	19.17	28.43	28.43	76.2	76.2	5.37	5.37																	
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	S	1	3																										
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	M	6	1	8.11	28.08	28.08	26.53	26.54	85.4	80.5	6.42	5.89																	
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	M	6	2	8.11	28.08	28.08	26.54	26.54	75.5	80.5	5.35	5.89																	
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	M	6	3																										
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	B	11	1	8.07	31.18	31.18	25.91	25.91	65.3	66.2	4.65	4.77																	
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	B	11	2	8.07	31.18	31.18	25.91	25.91	67.0	66.2	4.88	4.77																	
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	B	11	3																										
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	S	1	1	8.16	18.77	18.74	28.45	28.45	74.3	74.3	5.21	5.21																	
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	S	1	2	8.16	18.71	18.74	28.44	28.45	74.3	74.3	5.21	5.21																	
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	S	1	3																										
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	M	4.5	1	8.12	22.22	22.23	27.68	27.68	64.6	64.6	5.16	5.15																	
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	M	4.5	2	8.12	22.23	22.23	27.68	27.68	64.6	64.6	5.13	5.15																	
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	M	4.5	3																										
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	B	8	1	8.08	28.17	28.18	28.46	28.47	77.3	77.4	5.48	5.49																	
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	B	8	2	8.08	28.19	28.18	28.48	28.47	77.4	77.4	5.49	5.49																	
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	B	8	3																										
SR3	27/6/2019	Mid-Flood	Fine	Smooth	12:29	8	S	1	1	8.13	18.82	18.83	27.92	27.92	67.1	67.1	5.15	5.23																	
SR3	27/6/2019	Mid-Flood	Fine	Smooth	12:29	8	S	1	2	8.13	18.84	18.83	27.91	27.92	67.1	67.1	5.31	5.23																	
SR3	27/6/2019	Mid-Flood	Fine	Smooth	12:29	8	S	1	3																										
SR3	27/6/2019	Mid-Flood	Fine	Smooth	12:29	8	M	4	1	8.12	23.65	23.66	27.08	27.08	55.4	55.4	5.11	5.12																	
SR3	27/6/2019	Mid-Flood	Fine	Smooth	12:29	8	M	4	2	8.12	23.66	23.66	27.08	27.08	55.4	55.4	5.13	5.12																	
SR3	27/6/2019	Mid-Flood	Fine	Smooth	12:29	8	M	4	3																										
SR3	27/6/2019	Mid-Flood	Fine	Smooth	12:29	8	B	7	1	8.10	25.46	25.47	27.07	27.08	55.3	55.3	4.65	4.55																	
SR3	27/6/2019	Mid-Flood	Fine	Smooth	12:29	8	B	7	2	8.10	25.48	25.47	27.08	27.08	55.3	55.3	4.44	4.55																	
SR3	27/6/2019	Mid-Flood	Fine	Smooth	12:29	8	B	7	3																										



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	S	1	1	3	0.06	0.07	0.07	0.006	0.007	0.005	0.06	0.30	0.03	0.39	0.28	0.19	33	35	55	NA	NA	NA	<1	1	1		
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	S	1	2	3	0.08	0.07	0.07	0.008	0.007	0.005	0.08	0.16	0.03	0.27	0.28	0.19	38	35	55	NA	NA	NA	<1	1	1		
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	S	1	3	3	0.06	0.07	0.07	0.003	0.003	0.005	0.06	0.08	0.03	0.17	0.16	0.19	140	64	55	NA	NA	NA	1	1	1		
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	M	14	1	4	0.06	0.07	0.07	0.003	0.003	0.005	0.06	0.08	0.03	0.17	0.16	0.19	140	64	55	NA	NA	NA	1	1	1		
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	M	14	2	4	0.07	0.07	0.07	0.004	0.004	0.005	0.07	0.06	0.03	0.16	0.16	0.19	29	64	55	NA	NA	NA	1	1	1		
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	M	14	3	4	0.07	0.07	0.07	0.004	0.004	0.005	0.07	0.04	0.03	0.14	0.13	0.19	150	74	55	NA	NA	NA	1	1	1		
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	B	27	1	4	0.07	0.07	0.07	0.004	0.004	0.005	0.07	0.04	0.03	0.14	0.13	0.19	150	74	55	NA	NA	NA	1	1	1		
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	B	27	2	4	0.07	0.07	0.07	0.004	0.004	0.005	0.07	0.03	0.03	0.13	0.13	0.19	37	74	55	NA	NA	NA	1	1	1		
C1A	27/6/2019	Mid-Flood	Fine	Smooth	11:18	28	B	27	3	4	0.07	0.07	0.07	0.004	0.004	0.005	0.07	0.03	0.02	0.12	0.13	0.19	37	74	55	NA	NA	NA	1	1	1		
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	S	1	1	3	0.14	0.18	0.20	0.009	0.012	0.012	0.14	0.12	0.03	0.29	0.38	0.45	1500	883	783	NA	NA	NA	<1	1	1		
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	S	1	2	3	0.21	0.18	0.20	0.014	0.012	0.012	0.21	0.17	0.03	0.41	0.38	0.45	520	883	783	NA	NA	NA	<1	1	1		
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	S	1	3	3	0.21	0.18	0.20	0.014	0.012	0.012	0.22	0.18	0.03	0.43	0.38	0.45	520	883	783	NA	NA	NA	<1	1	1		
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	M	6.5	1	2	0.21	0.21	0.20	0.012	0.012	0.012	0.21	0.20	0.03	0.44	0.47	0.45	1100	932	783	NA	NA	NA	<1	1	1		
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	M	6.5	2	2	0.21	0.21	0.20	0.012	0.012	0.012	0.21	0.24	0.03	0.48	0.47	0.45	790	932	783	NA	NA	NA	<1	1	1		
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	M	6.5	3	3	0.21	0.21	0.20	0.012	0.012	0.012	0.21	0.25	0.03	0.49	0.47	0.45	790	932	783	NA	NA	NA	<1	1	1		
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	B	12	1	3	0.22	0.22	0.22	0.011	0.011	0.011	0.22	0.25	0.02	0.49	0.51	0.45	200	583	783	NA	NA	NA	<1	1	1		
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	B	12	2	3	0.21	0.22	0.22	0.011	0.011	0.011	0.21	0.27	0.03	0.51	0.51	0.45	1700	583	783	NA	NA	NA	1	1	1		
C2A	27/6/2019	Mid-Flood	Fine	Smooth	13:38	13	B	12	3	3	0.21	0.22	0.22	0.011	0.011	0.011	0.22	0.28	0.03	0.53	0.51	0.45	1700	583	783	NA	NA	NA	1	1	1		
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	S	1	1	2	NA	NA	NA	NA	NA	NA	0.12	0.61	0.03	0.76	0.74	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	S	1	2	2	NA	NA	NA	NA	NA	NA	0.11	0.56	0.03	0.70	0.74	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	S	1	3	3	NA	NA	NA	NA	NA	NA	0.12	0.60	0.03	0.75	0.74	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	M	6	1	2	NA	NA	NA	NA	NA	NA	0.11	0.65	0.03	0.79	0.75	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	M	6	2	3	NA	NA	NA	NA	NA	NA	0.11	0.57	0.03	0.71	0.75	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	M	6	3	3	NA	NA	NA	NA	NA	NA	0.12	0.60	0.03	0.75	0.75	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	B	11	1	3	NA	NA	NA	NA	NA	NA	0.12	0.63	0.03	0.78	0.76	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	B	11	2	3	NA	NA	NA	NA	NA	NA	0.11	0.58	0.03	0.72	0.76	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	27/6/2019	Mid-Flood	Fine	Smooth	12:15	12	B	11	3	3	NA	NA	NA	NA	NA	NA	0.11	0.65	0.03	0.79	0.76	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	S	1	1	3	0.12	0.13	0.12	0.010	0.011	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	S	1	2	4	0.13	0.13	0.12	0.011	0.011	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	S	1	3	4	0.13	0.13	0.12	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	M	4.5	1	4	0.13	0.13	0.12	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	M	4.5	2	3	0.13	0.13	0.12	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	M	4.5	3	4	0.13	0.13	0.12	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	B	8	1	3	0.08	0.11	0.11	0.009	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	B	8	2	4	0.08	0.11	0.11	0.005	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	27/6/2019	Mid-Flood	Fine	Smooth	12:00	9	B	8	3	4	0.08	0.11	0.11	0.005	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	27/6/2019	Mid-Flood	Fine	Smooth	12:29	8	S	1	1	3	0.10	0.10	0.10	0.008	0.008	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	27/6/2019	Mid-Flood	Fine	Smooth	12:29	8	S	1	2	3	0.10	0.10	0.10	0.008	0.008	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	27/6/2019	Mid-Flood	Fine	Smooth	12:29	8	S	1	3	3	0.10	0.10	0.10	0.008	0.008	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	27/6/2019	Mid-Flood	Fine	Smooth	12:29	8	M	4	1	2	0.11	0.11	0.10	0.008	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	27/6/2019	Mid-Flood	Fine	Smooth	12:29	8	M	4	2	2	0.10	0.11	0.10	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	27/6/2019	Mid-Flood	Fine	Smooth	12:29	8	M	4	3	3	0.10	0.11	0.10	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	27/6/2019	Mid-Flood	Fine	Smooth	12:29	8	B	7	1	3	0.10	0.10	0.10	0.006	0.006	0.006	NA	NA	NA	NA	NA												

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	27/6/2019	Mid-Flood	Fine	Smooth	12:42	4	S	1	1	2	0.14	0.14	0.14	0.011	0.011	0.011	NA	NA	NA	NA	NA	870	978	1100	NA	NA	NA	<1	<1	1	1		
SR4	27/6/2019	Mid-Flood	Fine	Smooth	12:42	4	S	1	2	2	0.13	0.14	0.14	0.011	0.011	0.011	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR4	27/6/2019	Mid-Flood	Fine	Smooth	12:42	4	S	1	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR4	27/6/2019	Mid-Flood	Fine	Smooth	12:42	4	M	1	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR4	27/6/2019	Mid-Flood	Fine	Smooth	12:42	4	M	2	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR4	27/6/2019	Mid-Flood	Fine	Smooth	12:42	4	M	3	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR4	27/6/2019	Mid-Flood	Fine	Smooth	12:42	4	B	3	1	3	0.16	0.14	0.14	0.012	0.010	0.010	NA	NA	NA	NA	NA	760	1032	1400	NA	NA	NA	<1	<1	1	1		
SR4	27/6/2019	Mid-Flood	Fine	Smooth	12:42	4	B	3	2	3	0.12	0.14	0.14	0.009	0.010	0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR4	27/6/2019	Mid-Flood	Fine	Smooth	12:42	4	B	3	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	27/6/2019	Mid-Flood	Fine	Smooth	11:39	11	S	1	1	3	NA	NA	NA	NA	NA	NA	0.05	0.82	0.03	0.90	0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	27/6/2019	Mid-Flood	Fine	Smooth	11:39	11	S	1	2	3	NA	NA	NA	NA	NA	NA	0.06	0.77	0.03	0.86	0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	27/6/2019	Mid-Flood	Fine	Smooth	11:39	11	S	1	3	3	NA	NA	NA	NA	NA	NA	0.06	0.80	0.03	0.89	0.89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	27/6/2019	Mid-Flood	Fine	Smooth	11:39	11	M	5.5	1	3	NA	NA	NA	NA	NA	NA	0.07	0.85	0.03	0.95	0.95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	27/6/2019	Mid-Flood	Fine	Smooth	11:39	11	M	5.5	2	3	NA	NA	NA	NA	NA	NA	0.06	0.75	0.03	0.84	0.89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	27/6/2019	Mid-Flood	Fine	Smooth	11:39	11	M	5.5	3	3	NA	NA	NA	NA	NA	NA	0.06	0.79	0.03	0.88	0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	27/6/2019	Mid-Flood	Fine	Smooth	11:39	11	B	10	1	3	NA	NA	NA	NA	NA	NA	0.06	0.84	0.03	0.93	0.92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	27/6/2019	Mid-Flood	Fine	Smooth	11:39	11	B	10	2	3	NA	NA	NA	NA	NA	NA	0.06	0.80	0.03	0.89	0.92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	27/6/2019	Mid-Flood	Fine	Smooth	11:39	11	B	10	3	3	NA	NA	NA	NA	NA	NA	0.07	0.84	0.03	0.94	0.92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR12	27/6/2019	Mid-Flood	Fine	Smooth	13:07	15	S	1	1	2	0.16	0.16	0.16	0.012	0.012	0.012	NA	NA	NA	NA	NA	760	516	350	NA	NA	NA	<1	<1	1	1		
SR12	27/6/2019	Mid-Flood	Fine	Smooth	13:07	15	S	1	2	3	0.15	0.16	0.16	0.012	0.012	0.012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR12	27/6/2019	Mid-Flood	Fine	Smooth	13:07	15	S	1	3	3	0.15	0.16	0.16	0.009	0.009	0.010	NA	NA	NA	NA	NA	800	447	250	NA	NA	NA	<1	<1	1	1		
SR12	27/6/2019	Mid-Flood	Fine	Smooth	13:07	15	M	7.5	1	3	0.15	0.16	0.16	0.009	0.009	0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR12	27/6/2019	Mid-Flood	Fine	Smooth	13:07	15	M	7.5	3	3	0.16	0.16	0.16	0.010	0.009	0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR12	27/6/2019	Mid-Flood	Fine	Smooth	13:07	15	B	14	1	2	0.15	0.15	0.15	0.008	0.008	0.008	NA	NA	NA	NA	NA	220	325	480	NA	NA	NA	<1	<1	1	1		
SR12	27/6/2019	Mid-Flood	Fine	Smooth	13:07	15	B	14	2	2	0.15	0.15	0.15	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR12	27/6/2019	Mid-Flood	Fine	Smooth	13:07	15	B	14	3	3	0.15	0.15	0.15	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	27/6/2019	Mid-Flood	Fine	Smooth	13:20	14	S	1	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	27/6/2019	Mid-Flood	Fine	Smooth	13:20	14	S	1	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	27/6/2019	Mid-Flood	Fine	Smooth	13:20	14	S	1	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	27/6/2019	Mid-Flood	Fine	Smooth	13:20	14	M	7	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	27/6/2019	Mid-Flood	Fine	Smooth	13:20	14	M	7	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	27/6/2019	Mid-Flood	Fine	Smooth	13:20	14	M	7	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	27/6/2019	Mid-Flood	Fine	Smooth	13:20	14	B	13	1	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	27/6/2019	Mid-Flood	Fine	Smooth	13:20	14	B	13	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	27/6/2019	Mid-Flood	Fine	Smooth	13:20	14	B	13	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.





Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																									
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)				
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.		
C1A	27/6/2019	Mid-Ebb	Fine	Smooth	11:05	28	S	1	1	4	0.08	0.07	0.07	0.008	0.006	0.008	0.008	0.08	0.25	0.02	0.35	0.21	0.15	30	29	71	NA	NA	NA	<1	<1	1	1		
C1A	27/6/2019	Mid-Ebb	Fine	Smooth	11:05	28	S	1	2	4	0.05	0.07	0.07	0.005	0.006	0.005	0.005	0.05	0.06	0.03	0.14	0.21	0.15	29	29	71	NA	NA	NA	<1	<1	1	1		
C1A	27/6/2019	Mid-Ebb	Fine	Smooth	11:05	28	S	1	3	4	0.06	0.07	0.07	0.003	0.003	0.003	0.003	0.07	0.04	0.03	0.14	0.12	0.15	100	114	71	NA	NA	NA	<1	<1	1	1		
C1A	27/6/2019	Mid-Ebb	Fine	Smooth	11:05	28	M	14	1	4	0.07	0.07	0.07	0.004	0.004	0.004	0.004	0.07	0.02	0.03	0.12	0.12	0.15	130	114	71	NA	NA	NA	<1	<1	1	1		
C1A	27/6/2019	Mid-Ebb	Fine	Smooth	11:05	28	M	14	2	4	0.08	0.08	0.08	0.004	0.004	0.004	0.004	0.08	0.02	0.03	0.13	0.12	0.15	100	114	71	NA	NA	NA	2	2	2	2		
C1A	27/6/2019	Mid-Ebb	Fine	Smooth	11:05	28	B	27	1	4	0.08	0.08	0.08	0.004	0.004	0.004	0.004	0.08	0.02	0.03	0.13	0.12	0.15	100	114	71	NA	NA	NA	2	2	2	2		
C1A	27/6/2019	Mid-Ebb	Fine	Smooth	11:05	28	B	27	2	4	0.08	0.08	0.08	0.004	0.004	0.004	0.004	0.08	0.02	0.03	0.13	0.12	0.15	110	105	71	NA	NA	NA	2	2	2	2		
C2A	27/6/2019	Mid-Ebb	Fine	Smooth	8:33	13	S	1	1	2	0.22	0.22	0.22	0.014	0.014	0.014	0.014	0.22	0.11	0.03	0.36	0.38	0.43	370	638	400	NA	NA	NA	<1	<1	1	1		
C2A	27/6/2019	Mid-Ebb	Fine	Smooth	8:33	13	S	1	2	2	0.22	0.22	0.22	0.014	0.014	0.014	0.014	0.22	0.14	0.02	0.38	0.38	0.43	1100	638	400	NA	NA	NA	<1	<1	1	1		
C2A	27/6/2019	Mid-Ebb	Fine	Smooth	8:33	13	S	1	3	2	0.21	0.21	0.21	0.012	0.012	0.012	0.012	0.21	0.16	0.03	0.40	0.44	0.43	680	583	400	NA	NA	NA	1	1	1	1		
C2A	27/6/2019	Mid-Ebb	Fine	Smooth	8:33	13	M	6.5	1	2	0.21	0.21	0.21	0.012	0.012	0.012	0.012	0.21	0.19	0.03	0.43	0.44	0.43	500	583	400	NA	NA	NA	<1	<1	1	1		
C2A	27/6/2019	Mid-Ebb	Fine	Smooth	8:33	13	M	6.5	2	2	0.21	0.21	0.21	0.012	0.012	0.012	0.012	0.21	0.20	0.03	0.44	0.48	0.43	500	583	400	NA	NA	NA	<1	<1	1	1		
C2A	27/6/2019	Mid-Ebb	Fine	Smooth	8:33	13	M	6.5	3	2	0.21	0.21	0.21	0.011	0.011	0.011	0.011	0.21	0.21	0.02	0.44	0.48	0.43	270	172	400	NA	NA	NA	<1	<1	1	1		
C2A	27/6/2019	Mid-Ebb	Fine	Smooth	8:33	13	B	12	1	2	0.21	0.21	0.21	0.011	0.011	0.011	0.011	0.21	0.24	0.03	0.48	0.48	0.43	110	172	400	NA	NA	NA	<1	<1	1	1		
C2A	27/6/2019	Mid-Ebb	Fine	Smooth	8:33	13	B	12	2	3	0.21	0.21	0.21	0.011	0.011	0.011	0.011	0.21	0.24	0.03	0.48	0.48	0.43	110	172	400	NA	NA	NA	<1	<1	1	1		
C2A	27/6/2019	Mid-Ebb	Fine	Smooth	8:33	13	B	12	3	3	0.21	0.21	0.21	0.011	0.011	0.011	0.011	0.21	0.25	0.02	0.48	0.48	0.43	110	172	400	NA	NA	NA	<1	<1	1	1		
G2	27/6/2019	Mid-Ebb	Fine	Smooth	9:59	12	S	1	1	2	NA	NA	NA	NA	NA	NA	NA	0.11	0.54	0.03	0.68	0.69	0.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	27/6/2019	Mid-Ebb	Fine	Smooth	9:59	12	S	1	2	2	NA	NA	NA	NA	NA	NA	NA	0.10	0.60	0.03	0.73	0.69	0.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	27/6/2019	Mid-Ebb	Fine	Smooth	9:59	12	S	1	3	2	NA	NA	NA	NA	NA	NA	NA	0.11	0.52	0.03	0.66	0.68	0.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	27/6/2019	Mid-Ebb	Fine	Smooth	9:59	12	M	6	1	3	NA	NA	NA	NA	NA	NA	NA	0.10	0.55	0.03	0.68	0.68	0.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	27/6/2019	Mid-Ebb	Fine	Smooth	9:59	12	M	6	2	3	NA	NA	NA	NA	NA	NA	NA	0.11	0.55	0.03	0.69	0.68	0.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	27/6/2019	Mid-Ebb	Fine	Smooth	9:59	12	M	6	3	3	NA	NA	NA	NA	NA	NA	NA	0.11	0.53	0.03	0.67	0.68	0.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	27/6/2019	Mid-Ebb	Fine	Smooth	9:59	12	B	11	1	2	NA	NA	NA	NA	NA	NA	NA	0.11	0.55	0.03	0.69	0.72	0.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
G2	27/6/2019	Mid-Ebb	Fine	Smooth	9:59	12	B	11	2	3	NA	NA	NA	NA	NA	NA	NA	0.12	0.62	0.03	0.77	0.72	0.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
G2	27/6/2019	Mid-Ebb	Fine	Smooth	9:59	12	B	11	3	3	NA	NA	NA	NA	NA	NA	NA	0.11	0.56	0.03	0.70	0.72	0.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR2	27/6/2019	Mid-Ebb	Fine	Smooth	10:14	9	S	1	1	2	0.12	0.13	0.12	0.010	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR2	27/6/2019	Mid-Ebb	Fine	Smooth	10:14	9	S	1	2	2	0.13	0.13	0.13	0.011	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR2	27/6/2019	Mid-Ebb	Fine	Smooth	10:14	9	S	1	3	2	0.12	0.12	0.12	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR2	27/6/2019	Mid-Ebb	Fine	Smooth	10:14	9	M	4.5	1	3	0.12	0.12	0.12	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR2	27/6/2019	Mid-Ebb	Fine	Smooth	10:14	9	M	4.5	2	3	0.12	0.12	0.12	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR2	27/6/2019	Mid-Ebb	Fine	Smooth	10:14	9	M	4.5	3	3	0.12	0.12	0.12	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR2	27/6/2019	Mid-Ebb	Fine	Smooth	10:14	9	B	8	1	3	0.11	0.12	0.12	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR2	27/6/2019	Mid-Ebb	Fine	Smooth	10:14	9	B	8	2	3	0.12	0.12	0.12	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR2	27/6/2019	Mid-Ebb	Fine	Smooth	10:14	9	B	8	3	3	0.12	0.12	0.12	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR3	27/6/2019	Mid-Ebb	Fine	Smooth	9:45	8	S	1	1	3	0.09	0.09	0.09	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR3	27/6/2019	Mid-Ebb	Fine	Smooth	9:45	8	S	1	2	3	0.09	0.09	0.09	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR3	27/6/2019	Mid-Ebb	Fine	Smooth	9:45	8	S	1	3	3	0.09	0.09	0.09	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR3	27/6/2019	Mid-Ebb	Fine	Smooth	9:45	8	M	4	1	3	0.09	0.09	0.09	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR3	27/6/2019	Mid-Ebb	Fine	Smooth	9:45	8	M	4	2	3	0.09	0.09	0.09	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR3	27/6/2019	Mid-Ebb	Fine	Smooth	9:45	8	M	4	3	3	0.09	0.09	0.09	0.007	0.007	0																			

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																									
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)				
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.		
SR4	27/6/2019	Mid-Ebb	Fine	Smooth	9:28	4	S	1	1	3	0.12	0.13	0.13	0.009	0.010	0.010	0.010	0.010	0.010	NA	NA	NA	NA	NA	650	1200	883	NA	NA	NA	NA	<1	<1	1	1
SR4	27/6/2019	Mid-Ebb	Fine	Smooth	9:28	4	S	1	2	3	0.13	0.13	0.13	0.009	0.010	0.010	0.010	0.010	0.010	NA	NA	NA	NA	NA	1200	883	NA	NA	NA	NA	<1	<1	1	1	
SR4	27/6/2019	Mid-Ebb	Fine	Smooth	9:28	4	S	1	3	3	0.13	0.13	0.13	0.009	0.010	0.010	0.010	0.010	0.010	NA	NA	NA	NA	NA	1200	883	NA	NA	NA	NA	<1	<1	1	1	
SR4	27/6/2019	Mid-Ebb	Fine	Smooth	9:28	4	M	1	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	984	NA	NA	NA	NA	NA	NA	NA	1	
SR4	27/6/2019	Mid-Ebb	Fine	Smooth	9:28	4	M	2	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	984	NA	NA	NA	NA	NA	NA	NA	1	
SR4	27/6/2019	Mid-Ebb	Fine	Smooth	9:28	4	M	3	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	984	NA	NA	NA	NA	NA	NA	NA	1	
SR4	27/6/2019	Mid-Ebb	Fine	Smooth	9:28	4	B	3	2	3	0.14	0.14	0.14	0.010	0.010	0.010	0.010	0.010	0.010	NA	NA	NA	NA	NA	1200	1095	NA	NA	NA	NA	<1	<1	1	1	
SR4	27/6/2019	Mid-Ebb	Fine	Smooth	9:28	4	B	3	3	3	0.14	0.14	0.14	0.010	0.010	0.010	0.010	0.010	0.010	NA	NA	NA	NA	NA	1000	1095	NA	NA	NA	NA	<1	<1	1	1	
SR5	27/6/2019	Mid-Ebb	Fine	Smooth	10:38	11	S	1	1	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	0.71	0.03	0.80	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	27/6/2019	Mid-Ebb	Fine	Smooth	10:38	11	S	1	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	0.74	0.03	0.83	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	27/6/2019	Mid-Ebb	Fine	Smooth	10:38	11	S	1	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	0.75	0.03	0.84	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	27/6/2019	Mid-Ebb	Fine	Smooth	10:38	11	M	5.5	1	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	0.72	0.03	0.80	0.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	27/6/2019	Mid-Ebb	Fine	Smooth	10:38	11	M	5.5	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	0.69	0.03	0.78	0.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	27/6/2019	Mid-Ebb	Fine	Smooth	10:38	11	M	5.5	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	0.74	0.03	0.83	0.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	27/6/2019	Mid-Ebb	Fine	Smooth	10:38	11	B	10	1	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	0.76	0.03	0.85	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	27/6/2019	Mid-Ebb	Fine	Smooth	10:38	11	B	10	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	0.72	0.03	0.80	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	27/6/2019	Mid-Ebb	Fine	Smooth	10:38	11	B	10	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	0.74	0.03	0.82	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR12	27/6/2019	Mid-Ebb	Fine	Smooth	9:10	15	S	1	1	3	0.14	0.15	0.15	0.010	0.011	0.011	0.011	0.011	0.011	NA	NA	NA	NA	NA	460	1400	802	NA	NA	NA	NA	1.1	<1	1	1
SR12	27/6/2019	Mid-Ebb	Fine	Smooth	9:10	15	S	1	2	3	0.15	0.15	0.15	0.010	0.011	0.011	0.011	0.011	0.011	NA	NA	NA	NA	NA	1400	802	NA	NA	NA	NA	<1	<1	1	1	
SR12	27/6/2019	Mid-Ebb	Fine	Smooth	9:10	15	S	1	3	3	0.15	0.15	0.15	0.010	0.011	0.011	0.011	0.011	0.011	NA	NA	NA	NA	NA	20	60	323	NA	NA	NA	NA	1	<1	1	1
SR12	27/6/2019	Mid-Ebb	Fine	Smooth	9:10	15	M	7.5	1	3	0.16	0.16	0.16	0.009	0.009	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	180	20	323	NA	NA	NA	NA	1	<1	1	1
SR12	27/6/2019	Mid-Ebb	Fine	Smooth	9:10	15	M	7.5	2	3	0.15	0.16	0.16	0.009	0.009	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	20	60	323	NA	NA	NA	NA	<1	<1	1	1
SR12	27/6/2019	Mid-Ebb	Fine	Smooth	9:10	15	M	7.5	3	3	0.15	0.16	0.16	0.009	0.009	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	20	60	323	NA	NA	NA	NA	<1	<1	1	1
SR12	27/6/2019	Mid-Ebb	Fine	Smooth	9:10	15	B	14	1	3	0.14	0.14	0.14	0.007	0.007	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	350	700	NA	NA	NA	NA	<1	<1	1	1	
SR12	27/6/2019	Mid-Ebb	Fine	Smooth	9:10	15	B	14	2	3	0.14	0.14	0.14	0.007	0.007	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	1400	700	NA	NA	NA	NA	<1	<1	1	1	
SR12	27/6/2019	Mid-Ebb	Fine	Smooth	9:10	15	B	14	3	3	0.14	0.14	0.14	0.007	0.007	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	1400	700	NA	NA	NA	NA	<1	<1	1	1	
SR13	27/6/2019	Mid-Ebb	Fine	Smooth	8:51	14	S	1	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	27/6/2019	Mid-Ebb	Fine	Smooth	8:51	14	S	1	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	27/6/2019	Mid-Ebb	Fine	Smooth	8:51	14	S	1	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	27/6/2019	Mid-Ebb	Fine	Smooth	8:51	14	M	7	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	27/6/2019	Mid-Ebb	Fine	Smooth	8:51	14	M	7	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	27/6/2019	Mid-Ebb	Fine	Smooth	8:51	14	M	7	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	27/6/2019	Mid-Ebb	Fine	Smooth	8:51	14	B	13	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	27/6/2019	Mid-Ebb	Fine	Smooth	8:51	14	B	13	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	27/6/2019	Mid-Ebb	Fine	Smooth	8:51	14	B	13	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																													
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)							
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.				
C1A	29/6/2019	Mid-Flood	Cloudy	Moderate	14:30	27	S	1	1	7.53	32.48	32.48	28.73	28.73	89.9	89.5	89.7	6.94	6.93	6.94	2.3	2.4	2.4	0.31	0.32	0.32	0.006	0.006	0.006	0.006	0.006	0.006	0.31	0.42	0.03	0.76	0.77	0.81	0.81
C1A	29/6/2019	Mid-Flood	Cloudy	Moderate	14:30	27	S	1	3	7.53	32.48	32.48	28.73	28.73	89.5	89.7	6.93	6.94	6.94	2.3	2.4	2.4	0.31	0.32	0.32	0.006	0.006	0.006	0.006	0.006	0.006	0.31	0.43	0.03	0.77	0.77	0.81	0.81	
C1A	29/6/2019	Mid-Flood	Cloudy	Moderate	14:30	27	M	13.5	1	7.53	32.37	32.37	28.64	28.64	89.3	89.0	89.2	6.85	6.82	6.84	2.8	2.9	2.9	0.32	0.33	0.33	0.006	0.006	0.006	0.006	0.006	0.32	0.44	0.03	0.79	0.79	0.81	0.81	
C1A	29/6/2019	Mid-Flood	Cloudy	Moderate	14:30	27	M	13.5	2	7.53	32.37	32.37	28.64	28.64	89.0	89.2	6.82	6.84	6.84	2.8	2.9	2.9	0.32	0.33	0.33	0.006	0.006	0.006	0.006	0.006	0.32	0.45	0.04	0.82	0.82	0.81	0.81		
C1A	29/6/2019	Mid-Flood	Cloudy	Moderate	14:30	27	M	13.5	3	7.53	32.37	32.37	28.64	28.64	89.0	89.2	6.82	6.84	6.84	2.8	2.9	2.9	0.32	0.33	0.33	0.006	0.006	0.006	0.006	0.006	0.32	0.46	0.04	0.82	0.82	0.81	0.81		
C1A	29/6/2019	Mid-Flood	Cloudy	Moderate	14:30	27	B	26	1	7.53	31.42	31.42	28.41	28.41	88.4	88.1	88.3	6.76	6.73	6.75	3.1	3.2	3.2	0.33	0.33	0.33	0.006	0.006	0.006	0.006	0.006	0.33	0.47	0.04	0.84	0.84	0.85	0.85	
C1A	29/6/2019	Mid-Flood	Cloudy	Moderate	14:30	27	B	26	2	7.53	31.42	31.42	28.41	28.41	88.1	88.3	6.73	6.75	6.75	3.1	3.2	3.2	0.33	0.33	0.33	0.006	0.006	0.006	0.006	0.006	0.33	0.48	0.04	0.85	0.85	0.85	0.85		
C1A	29/6/2019	Mid-Flood	Cloudy	Moderate	14:30	27	B	26	3	7.53	31.42	31.42	28.41	28.41	88.1	88.3	6.73	6.75	6.75	3.1	3.2	3.2	0.33	0.33	0.33	0.006	0.006	0.006	0.006	0.006	0.33	0.47	0.04	0.84	0.84	0.85	0.85		
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	S	1	1	7.73	31.78	31.78	28.84	28.84	95.4	95.0	95.2	7.08	7.04	7.06	2.4	2.5	2.5	0.29	0.30	0.30	0.009	0.009	0.009	0.009	0.009	0.29	0.49	0.03	0.81	0.82	0.87	0.87	
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	S	1	2	7.73	31.78	31.78	28.84	28.84	95.0	95.2	7.04	7.06	7.06	2.4	2.5	2.5	0.29	0.30	0.30	0.009	0.009	0.009	0.009	0.009	0.30	0.49	0.03	0.82	0.82	0.87	0.87		
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	S	1	3	7.73	31.78	31.78	28.84	28.84	95.0	95.2	7.04	7.06	7.06	2.4	2.5	2.5	0.29	0.30	0.30	0.009	0.009	0.009	0.009	0.009	0.30	0.50	0.03	0.83	0.83	0.87	0.87		
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	M	6.5	1	7.73	31.54	31.54	28.57	28.57	94.7	94.0	94.4	6.82	6.81	6.82	3.0	3.1	3.1	0.31	0.32	0.32	0.009	0.010	0.010	0.010	0.010	0.31	0.50	0.03	0.84	0.84	0.87	0.87	
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	M	6.5	2	7.73	31.54	31.54	28.57	28.57	94.0	94.4	6.81	6.82	6.82	3.0	3.1	3.1	0.31	0.32	0.32	0.009	0.010	0.010	0.010	0.010	0.32	0.51	0.03	0.86	0.86	0.87	0.87		
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	M	6.5	3	7.73	31.54	31.54	28.57	28.57	94.0	94.4	6.81	6.82	6.82	3.0	3.1	3.1	0.31	0.32	0.32	0.009	0.010	0.010	0.010	0.010	0.31	0.51	0.03	0.85	0.85	0.87	0.87		
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	B	12	1	7.73	31.62	31.62	28.30	28.30	91.9	91.9	6.74	6.75	6.75	3.4	3.5	3.5	0.32	0.33	0.33	0.010	0.010	0.010	0.010	0.010	0.32	0.57	0.04	0.93	0.93	0.93	0.93		
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	B	12	2	7.73	31.62	31.62	28.30	28.30	91.8	91.9	6.75	6.75	6.75	3.4	3.5	3.5	0.32	0.33	0.33	0.010	0.010	0.010	0.010	0.010	0.33	0.57	0.04	0.94	0.94	0.93	0.93		
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	B	12	3	7.73	31.62	31.62	28.30	28.30	91.8	91.9	6.75	6.75	6.75	3.4	3.5	3.5	0.32	0.33	0.33	0.010	0.010	0.010	0.010	0.010	0.31	0.58	0.04	0.93	0.93	0.93	0.93		
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	S	1	1	7.67	30.62	30.62	28.75	28.75	91.4	90.8	91.1	6.94	6.91	6.93	2.1	2.2	2.2	NA	NA	NA	NA	NA	NA	0.24	0.53	0.04	0.81	0.82	0.86	0.86			
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	S	1	2	7.67	30.62	30.62	28.75	28.75	90.8	91.1	6.91	6.93	6.93	2.1	2.2	2.2	NA	NA	NA	NA	NA	NA	0.25	0.53	0.04	0.82	0.82	0.86	0.86				
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	S	1	3	7.67	30.62	30.62	28.75	28.75	90.8	91.1	6.91	6.93	6.93	2.1	2.2	2.2	NA	NA	NA	NA	NA	NA	0.25	0.53	0.04	0.82	0.82	0.86	0.86				
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	M	6	1	7.67	30.83	30.83	28.54	28.54	89.4	89.6	89.6	6.81	6.84	6.83	2.6	2.7	2.7	NA	NA	NA	NA	NA	NA	0.26	0.54	0.04	0.84	0.84	0.86	0.86			
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	M	6	2	7.67	30.83	30.83	28.54	28.54	89.8	89.6	6.84	6.83	6.83	2.6	2.7	2.7	NA	NA	NA	NA	NA	NA	0.27	0.55	0.04	0.86	0.86	0.86	0.86				
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	M	6	3	7.67	30.83	30.83	28.54	28.54	89.8	89.6	6.84	6.83	6.83	2.6	2.7	2.7	NA	NA	NA	NA	NA	NA	0.28	0.55	0.04	0.87	0.87	0.86	0.86				
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	B	11	1	7.67	30.94	30.94	28.32	28.32	87.4	87.5	87.5	6.73	6.75	6.74	3.1	3.2	3.2	NA	NA	NA	NA	NA	0.32	0.56	0.05	0.93	0.93	0.94	0.94				
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	B	11	2	7.67	30.94	30.94	28.32	28.32	87.5	87.5	6.75	6.74	6.74	3.1	3.2	3.2	NA	NA	NA	NA	NA	0.33	0.58	0.05	0.96	0.96	0.94	0.94					
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	B	11	3	7.67	30.94	30.94	28.32	28.32	87.5	87.5	6.75	6.74	6.74	3.1	3.2	3.2	NA	NA	NA	NA	NA	0.32	0.57	0.05	0.94	0.94	0.94	0.94					
SR2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:04	9	S	1	1	7.67	30.92	30.92	28.80	28.80	90.0	89.6	89.8	6.87	6.82	6.85	2.5	2.6	2.6	0.33	0.34	0.34	0.009	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	
SR2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:04	9	S	1	2	7.67	30.92	30.92	28.80	28.80	89.6	89.8	6.82	6.85	6.85	2.5	2.6	2.6	0.33	0.34	0.34	0.009	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA		
SR2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:04	9	S	1	3	7.67	30.92	30.92	28.80	28.80	89.6	89.8	6.82	6.85	6.85	2.5	2.6	2.6	0.33	0.34	0.34	0.009	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA		
SR2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:04	9	M	4.5	1	7.67	30.89	30.89	28.51	28.51	88.5	88.2	88.4	6.73	6.70	6.72	3.0	3.1	3.1	0.35	0.35	0.35	0.009	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	
SR2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:04	9	M	4.5	2	7.67	30.89	30.89	28.51	28.51	88.2	88.4	6.70	6.72	6.72	3.0	3.1	3.1	0.35	0.35	0.35	0.009	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA		
SR2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:04	9	M	4.5	3	7.67	30.89	30.89	28.51	28.51	88.2	88.4	6.70	6.72	6.72	3.0	3.1	3.1	0.35	0.35	0.35	0.009	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA		
SR2	29/6/2019	Mid-F																																					



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
C1A	29/6/2019	Mid-Flood	Cloudy	Moderate	14:30	27	S	1	1	3	0.27	0.28	0.28	0.005	0.005	0.005	0.005	0.005	0.005	0.27	0.41	0.03	0.71	0.24	240	202	220	NA	NA	NA	<1	1	1
C1A	29/6/2019	Mid-Flood	Cloudy	Moderate	14:30	27	S	1	2	3	0.28	0.28	0.28	0.005	0.005	0.005	0.005	0.005	0.28	0.53	0.03	0.84	0.24	170	202	220	NA	NA	NA	1	1	1	
C1A	29/6/2019	Mid-Flood	Cloudy	Moderate	14:30	27	S	1	3	3	0.22	0.22	0.22	0.004	0.005	0.005	0.005	0.005	0.22	0.46	0.03	0.71	0.23	230	220	220	NA	NA	NA	<1	1	1	
C1A	29/6/2019	Mid-Flood	Cloudy	Moderate	14:30	27	M	13.5	1	4	0.22	0.25	0.26	0.004	0.005	0.005	0.005	0.005	0.22	0.53	0.04	0.85	0.28	210	220	220	NA	NA	NA	<1	1	1	
C1A	29/6/2019	Mid-Flood	Cloudy	Moderate	14:30	27	M	13.5	3	4	0.28	0.25	0.26	0.005	0.005	0.005	0.005	0.005	0.31	0.49	0.03	0.83	0.26	250	240	220	NA	NA	NA	<1	1	1	
C1A	29/6/2019	Mid-Flood	Cloudy	Moderate	14:30	27	B	26	1	4	0.26	0.26	0.26	0.005	0.005	0.005	0.005	0.005	0.26	0.55	0.03	0.84	0.26	230	240	220	NA	NA	NA	<1	1	1	
C1A	29/6/2019	Mid-Flood	Cloudy	Moderate	14:30	27	B	26	2	4	0.26	0.26	0.26	0.005	0.005	0.005	0.005	0.005	0.26	0.47	0.03	0.76	0.26	230	240	220	NA	NA	NA	<1	1	1	
C1A	29/6/2019	Mid-Flood	Cloudy	Moderate	14:30	27	B	26	3	4	0.26	0.26	0.26	0.005	0.005	0.005	0.005	0.005	0.26	0.55	0.04	0.85	0.26	230	240	220	NA	NA	NA	<1	1	1	
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	S	1	1	4	0.27	0.28	0.28	0.008	0.009	0.009	0.009	0.009	0.27	0.48	0.03	0.78	0.29	160	208	209	NA	NA	NA	1	2	1	
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	S	1	2	4	0.29	0.28	0.28	0.009	0.009	0.009	0.009	0.009	0.29	0.51	0.03	0.83	0.29	270	208	209	NA	NA	NA	2	1	1	
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	S	1	3	4	0.34	0.34	0.34	0.010	0.010	0.010	0.010	0.010	0.34	0.50	0.03	0.87	0.34	270	209	209	NA	NA	NA	1	1	1	
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	M	6.5	1	4	0.33	0.34	0.34	0.010	0.010	0.010	0.010	0.010	0.33	0.56	0.03	0.92	0.33	190	226	209	NA	NA	NA	1	1	1	
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	M	6.5	3	4	0.33	0.34	0.34	0.010	0.010	0.010	0.010	0.010	0.33	0.51	0.03	0.86	0.32	190	226	209	NA	NA	NA	1	1	1	
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	B	12	1	3	0.31	0.30	0.30	0.009	0.009	0.009	0.009	0.009	0.31	0.57	0.04	0.92	0.31	180	194	209	NA	NA	NA	1	1	1	
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	B	12	2	4	0.28	0.30	0.30	0.008	0.009	0.009	0.009	0.009	0.28	0.48	0.03	0.79	0.28	210	194	209	NA	NA	NA	1	1	1	
C2A	29/6/2019	Mid-Flood	Cloudy	Moderate	16:30	13	B	12	3	4	0.28	0.30	0.30	0.008	0.009	0.009	0.009	0.009	0.30	0.52	0.04	0.86	0.30	210	194	209	NA	NA	NA	1	1	1	
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	S	1	1	4	NA	NA	NA	NA	NA	NA	NA	NA	0.23	0.52	0.04	0.79	0.23	NA	NA	NA	NA	NA	NA	NA	NA	NA	
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	S	1	2	3	NA	NA	NA	NA	NA	NA	NA	NA	0.22	0.57	0.04	0.83	0.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	S	1	3	4	NA	NA	NA	NA	NA	NA	NA	NA	0.22	0.64	0.04	0.90	0.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	M	6	1	4	NA	NA	NA	NA	NA	NA	NA	NA	0.23	0.57	0.04	0.84	0.23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	M	6	2	3	NA	NA	NA	NA	NA	NA	NA	NA	0.33	0.60	0.04	0.97	0.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	M	6	3	4	NA	NA	NA	NA	NA	NA	NA	NA	0.34	0.52	0.04	0.90	0.34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	B	11	1	3	NA	NA	NA	NA	NA	NA	NA	NA	0.34	0.52	0.04	0.90	0.34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	B	11	2	3	NA	NA	NA	NA	NA	NA	NA	NA	0.32	0.57	0.04	0.93	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:14	12	B	11	3	4	NA	NA	NA	NA	NA	NA	NA	NA	0.35	0.53	0.04	0.92	0.35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:04	9	S	1	1	3	0.33	0.33	0.33	0.009	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:04	9	S	1	2	2	0.33	0.33	0.33	0.009	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:04	9	S	1	3	3	0.35	0.34	0.34	0.009	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:04	9	M	4.5	1	2	0.32	0.34	0.34	0.009	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:04	9	M	4.5	3	3	0.32	0.34	0.34	0.009	0.009	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:04	9	B	8	1	3	0.31	0.32	0.32	0.008	0.008	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:04	9	B	8	2	3	0.32	0.32	0.32	0.008	0.008	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR2	29/6/2019	Mid-Flood	Cloudy	Moderate	15:04	9	B	8	3	3	0.32	0.32	0.32	0.008	0.008	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR3	29/6/2019	Mid-Flood	Cloudy	Moderate	15:23	8	S	1	1	3	0.32	0.32	0.32	0.006	0.006	0.006	0.006	0.006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR3	29/6/2019	Mid-Flood	Cloudy	Moderate	15:23	8	S	1	2	3	0.31	0.32	0.32	0.006	0.006	0.006	0.006	0.006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR3	29/6/2019	Mid-Flood	Cloudy	Moderate	15:23	8	S	1	3	3	0.31	0.32	0.32	0.006	0.006	0.006	0.006	0.006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR3	29/6/2019	Mid-Flood	Cloudy	Moderate	15:23	8	M	4	1	3	0.34	0.35	0.35	0.007	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR3	29/6/2019	Mid-Flood	Cloudy	Moderate	15:23	8	M	4	2	3	0.36	0.35	0.35	0.007	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR3	29/6/2019	Mid-Flood	Cloudy	Moderate	15:23	8	M	4	3	3	0.36	0.35	0.35	0.007	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR3	29/6/2019	Mid-Flood	Cloudy	Moderate	15:23	8	B	7	1	4	0.33	0.33	0.33	0.006	0.006	0.006	0.006	0.006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR3	29/6/2019	Mid-Flood	Cloudy	Moderate	15:23																												

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																									
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)				
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.		
SR4	29/6/2019	Mid-Flood	Cloudy	Moderate	15:38	4	S	1	1	3	0.34	0.35	0.35	0.011	0.011	0.011	0.010	NA	NA	NA	NA	NA	3700	3600	3650	NA	NA	NA	NA	<1	<1	1	1		
SR4	29/6/2019	Mid-Flood	Cloudy	Moderate	15:38	4	S	1	2	3	0.34	0.35	0.35	0.011	0.011	0.011	0.010	NA	NA	NA	NA	NA	3700	3600	3650	NA	NA	NA	NA	<1	<1	1	1		
SR4	29/6/2019	Mid-Flood	Cloudy	Moderate	15:38	4	S	1	3	3	0.34	0.35	0.35	0.011	0.011	0.011	0.010	NA	NA	NA	NA	NA	3700	3600	3650	NA	NA	NA	NA	<1	<1	1	1		
SR4	29/6/2019	Mid-Flood	Cloudy	Moderate	15:38	4	M	1	1	1	0.34	0.35	0.35	0.011	0.011	0.011	0.010	NA	NA	NA	NA	NA	3700	3600	3650	NA	NA	NA	NA	<1	<1	1	1		
SR4	29/6/2019	Mid-Flood	Cloudy	Moderate	15:38	4	M	2	2	2	0.34	0.35	0.35	0.011	0.011	0.011	0.010	NA	NA	NA	NA	NA	3700	3600	3650	NA	NA	NA	NA	<1	<1	1	1		
SR4	29/6/2019	Mid-Flood	Cloudy	Moderate	15:38	4	M	3	3	3	0.34	0.35	0.35	0.011	0.011	0.011	0.010	NA	NA	NA	NA	NA	3700	3600	3650	NA	NA	NA	NA	<1	<1	1	1		
SR4	29/6/2019	Mid-Flood	Cloudy	Moderate	15:38	4	B	3	2	3	0.33	0.29	0.31	0.010	0.009	0.010	0.010	0.010	NA	NA	NA	NA	NA	2800	3200	2993	NA	NA	NA	NA	<1	<1	1	1	
SR4	29/6/2019	Mid-Flood	Cloudy	Moderate	15:38	4	B	3	3	3	0.33	0.29	0.31	0.010	0.009	0.010	0.010	0.010	NA	NA	NA	NA	NA	2800	3200	2993	NA	NA	NA	NA	<1	<1	1	1	
SR5	29/6/2019	Mid-Flood	Cloudy	Moderate	14:48	11	S	1	1	4	NA	NA	NA	NA	NA	NA	0.90	0.27	0.64	0.04	0.95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	29/6/2019	Mid-Flood	Cloudy	Moderate	14:48	11	S	1	2	4	NA	NA	NA	NA	NA	NA	0.90	0.27	0.53	0.04	0.84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	29/6/2019	Mid-Flood	Cloudy	Moderate	14:48	11	S	1	3	4	NA	NA	NA	NA	NA	NA	0.90	0.26	0.61	0.04	0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	29/6/2019	Mid-Flood	Cloudy	Moderate	14:48	11	M	5.5	1	4	NA	NA	NA	NA	NA	NA	0.92	0.29	0.56	0.04	0.89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	29/6/2019	Mid-Flood	Cloudy	Moderate	14:48	11	M	5.5	2	4	NA	NA	NA	NA	NA	NA	0.92	0.29	0.57	0.04	0.90	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	29/6/2019	Mid-Flood	Cloudy	Moderate	14:48	11	M	5.5	3	4	NA	NA	NA	NA	NA	NA	0.91	0.29	0.63	0.04	0.96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	29/6/2019	Mid-Flood	Cloudy	Moderate	14:48	11	B	10	1	4	NA	NA	NA	NA	NA	NA	0.91	0.26	0.55	0.04	0.85	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	29/6/2019	Mid-Flood	Cloudy	Moderate	14:48	11	B	10	2	4	NA	NA	NA	NA	NA	NA	0.91	0.28	0.64	0.04	0.96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	29/6/2019	Mid-Flood	Cloudy	Moderate	14:48	11	B	10	3	4	NA	NA	NA	NA	NA	NA	0.91	0.33	0.56	0.04	0.93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR12	29/6/2019	Mid-Flood	Cloudy	Moderate	15:50	15	S	1	1	3	0.21	0.24	0.23	0.006	0.006	0.006	0.006	NA	NA	NA	NA	NA	4500	2900	3612	NA	NA	NA	NA	<1	<1	1	1		
SR12	29/6/2019	Mid-Flood	Cloudy	Moderate	15:50	15	S	1	2	3	0.21	0.24	0.23	0.006	0.006	0.006	0.006	NA	NA	NA	NA	NA	4500	2900	3612	NA	NA	NA	NA	<1	<1	1	1		
SR12	29/6/2019	Mid-Flood	Cloudy	Moderate	15:50	15	S	1	3	3	0.21	0.24	0.23	0.006	0.006	0.006	0.006	NA	NA	NA	NA	NA	4500	2900	3612	NA	NA	NA	NA	<1	<1	1	1		
SR12	29/6/2019	Mid-Flood	Cloudy	Moderate	15:50	15	M	7.5	1	3	0.23	0.22	0.23	0.006	0.006	0.006	0.006	NA	NA	NA	NA	NA	2900	3000	2950	3318	NA	NA	NA	NA	<1	<1	1	1	
SR12	29/6/2019	Mid-Flood	Cloudy	Moderate	15:50	15	M	7.5	2	4	0.23	0.22	0.23	0.006	0.006	0.006	0.006	NA	NA	NA	NA	NA	2900	3000	2950	3318	NA	NA	NA	NA	<1	<1	1	1	
SR12	29/6/2019	Mid-Flood	Cloudy	Moderate	15:50	15	M	7.5	3	4	0.23	0.22	0.23	0.006	0.006	0.006	0.006	NA	NA	NA	NA	NA	2900	3000	2950	3318	NA	NA	NA	NA	<1	<1	1	1	
SR12	29/6/2019	Mid-Flood	Cloudy	Moderate	15:50	15	B	14	1	5	0.22	0.20	0.21	0.006	0.005	0.005	0.005	NA	NA	NA	NA	NA	2800	4200	3429	NA	NA	NA	NA	<1	<1	1	1		
SR12	29/6/2019	Mid-Flood	Cloudy	Moderate	15:50	15	B	14	2	4	0.22	0.20	0.21	0.006	0.005	0.005	0.005	NA	NA	NA	NA	NA	2800	4200	3429	NA	NA	NA	NA	<1	<1	1	1		
SR12	29/6/2019	Mid-Flood	Cloudy	Moderate	15:50	15	B	14	3	4	0.22	0.20	0.21	0.006	0.005	0.005	0.005	NA	NA	NA	NA	NA	2800	4200	3429	NA	NA	NA	NA	<1	<1	1	1		
SR13	29/6/2019	Mid-Flood	Cloudy	Moderate	16:10	14	S	1	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	29/6/2019	Mid-Flood	Cloudy	Moderate	16:10	14	S	1	2	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	29/6/2019	Mid-Flood	Cloudy	Moderate	16:10	14	S	1	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	29/6/2019	Mid-Flood	Cloudy	Moderate	16:10	14	M	7	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	29/6/2019	Mid-Flood	Cloudy	Moderate	16:10	14	M	7	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	29/6/2019	Mid-Flood	Cloudy	Moderate	16:10	14	M	7	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	29/6/2019	Mid-Flood	Cloudy	Moderate	16:10	14	B	13	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	29/6/2019	Mid-Flood	Cloudy	Moderate	16:10	14	B	13	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	29/6/2019	Mid-Flood	Cloudy	Moderate	16:10	14	B	13	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.





Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																													
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)			TIN-Nitrate (mg/L-N)			TIN-Nitrite (mg/L-N)			Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.			
C1A	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:41	27	S	1	1	2	0.28	0.27	0.27	0.011	0.010	0.011	0.28	0.47	0.03	0.78	0.26	0.51	0.03	0.86	0.81	0.84	210	160	183	188	NA	NA	NA	1	1	1			
C1A	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:41	27	S	1	2	3	0.25	0.27	0.27	0.010	0.010	0.010	0.25	0.58	0.03	0.86	0.26	0.51	0.03	0.80	0.85	0.84	150	200	173	188	NA	NA	NA	2	2	2			
C1A	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:41	27	M	13.5	1	2	0.26	0.28	0.27	0.010	0.011	0.011	0.26	0.58	0.03	0.87	0.26	0.53	0.03	0.86	0.85	0.84	210	210	210	188	NA	NA	NA	2	2	2			
C1A	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:41	27	M	13.5	3	3	0.30	0.28	0.27	0.011	0.011	0.011	0.30	0.57	0.04	0.91	0.28	0.51	0.04	0.83	0.87	0.84	210	210	210	188	NA	NA	NA	2	2	2			
C1A	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:41	27	B	26	1	3	0.30	0.28	0.27	0.011	0.011	0.011	0.30	0.57	0.04	0.91	0.25	0.52	0.03	0.80	0.87	0.84	210	210	210	188	NA	NA	NA	2	2	2			
C1A	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:41	27	B	26	2	3	0.25	0.28	0.27	0.010	0.011	0.011	0.25	0.52	0.03	0.80	0.26	0.59	0.04	0.89	0.87	0.84	190	200	195	205	NA	NA	NA	1	1	1			
C2A	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:30	18	S	1	1	4	0.31	0.30	0.30	0.012	0.012	0.012	0.31	0.50	0.03	0.84	0.29	0.59	0.03	0.91	0.86	0.87	210	240	224	205	NA	NA	NA	1	1	1			
C2A	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:30	18	S	1	2	3	0.29	0.30	0.30	0.012	0.012	0.012	0.29	0.59	0.03	0.91	0.28	0.52	0.03	0.83	0.85	0.87	210	240	224	205	NA	NA	NA	1	1	1			
C2A	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:30	18	M	9	1	3	0.31	0.30	0.30	0.012	0.012	0.012	0.31	0.52	0.04	0.87	0.28	0.52	0.04	0.84	0.85	0.87	260	150	197	205	NA	NA	NA	1	1	1			
C2A	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:30	18	M	9	2	3	0.28	0.30	0.30	0.011	0.012	0.012	0.28	0.52	0.04	0.84	0.28	0.54	0.03	0.85	0.89	0.87	260	150	197	205	NA	NA	NA	1	1	1			
C2A	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:30	18	M	9	3	3	0.30	0.30	0.30	0.012	0.012	0.012	0.30	0.53	0.04	0.87	0.30	0.57	0.03	0.90	0.89	0.87	150	150	197	205	NA	NA	NA	1	1	1			
C2A	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:30	18	B	17	1	3	0.30	0.30	0.30	0.012	0.012	0.012	0.30	0.53	0.04	0.87	0.32	0.54	0.03	0.89	0.89	0.87	150	150	197	205	NA	NA	NA	1	1	1			
C2A	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:30	18	B	17	2	3	0.30	0.30	0.30	0.012	0.012	0.012	0.30	0.57	0.03	0.90	0.32	0.54	0.03	0.89	0.89	0.87	150	150	197	205	NA	NA	NA	1	1	1			
C2A	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:30	18	B	17	3	3	0.30	0.30	0.30	0.012	0.012	0.012	0.32	0.54	0.03	0.89	0.34	0.54	0.04	0.90	0.91	0.87	150	150	197	205	NA	NA	NA	1	1	1			
G2	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:57	13	S	1	1	5	NA	NA	NA	NA	NA	NA	0.34	0.57	0.04	0.95	0.30	0.54	0.04	0.88	0.91	0.93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
G2	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:57	13	S	1	2	5	NA	NA	NA	NA	NA	NA	0.30	0.54	0.04	0.88	0.32	0.54	0.04	0.90	0.91	0.93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
G2	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:57	13	S	1	3	5	NA	NA	NA	NA	NA	NA	0.32	0.62	0.04	0.98	0.31	0.53	0.04	0.88	0.93	0.93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
G2	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:57	13	M	6.5	1	4	NA	NA	NA	NA	NA	NA	0.32	0.62	0.04	0.98	0.31	0.53	0.04	0.88	0.93	0.93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
G2	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:57	13	M	6.5	2	4	NA	NA	NA	NA	NA	NA	0.31	0.53	0.04	0.88	0.33	0.55	0.04	0.92	0.93	0.93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
G2	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:57	13	M	6.5	3	4	NA	NA	NA	NA	NA	NA	0.33	0.55	0.04	0.92	0.31	0.60	0.04	0.95	0.95	0.95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
G2	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:57	13	B	12	1	4	NA	NA	NA	NA	NA	NA	0.31	0.60	0.04	0.95	0.34	0.54	0.04	0.92	0.95	0.95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
G2	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:57	13	B	12	2	4	NA	NA	NA	NA	NA	NA	0.34	0.54	0.04	0.92	0.34	0.61	0.04	0.99	0.95	0.95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
G2	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:57	13	B	12	3	4	NA	NA	NA	NA	NA	NA	0.34	0.61	0.04	0.99	0.34	0.61	0.04	0.99	0.95	0.95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR2	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:10	10	S	1	1	3	0.31	0.31	0.31	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR2	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:10	10	S	1	2	3	0.31	0.31	0.31	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR2	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:10	10	S	1	3	3	0.31	0.31	0.31	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:10	10	M	5	1	4	0.32	0.34	0.32	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:10	10	M	5	2	3	0.35	0.34	0.32	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:10	10	M	5	3	3	0.35	0.34	0.32	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:10	10	B	9	1	3	0.31	0.31	0.31	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:10	10	B	9	2	3	0.31	0.31	0.31	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:10	10	B	9	3	3	0.31	0.31	0.31	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:40	8	S	1	1	3	0.32	0.32	0.32	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:40	8	S	1	2	3	0.32	0.32	0.32	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:40	8	S	1	3	3	0.32	0.32	0.32	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:40	8	M	4	1	3	0.31	0.32	0.32	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:40	8	M	4	2	3	0.33	0.32	0.32	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:40	8	M	4	3	3	0.33	0.32	0.32	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:40	8	B	7	1	4	0.31	0.33	0.32	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:40	8	B	7	2	4	0.34	0.33	0.32	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:40	8	B	7	3	4	0.34	0.33	0.32	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:27	4	S	1	1	3	0.26	0.28	0.011	0.012	0.011	0.012	NA	NA	NA	NA	NA	NA	2700	2381	2330	NA	NA	NA	1	2	1	1	
SR4	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:27	4	S	1	2	4	0.29	0.28	0.013	0.012	0.013	0.012	NA	NA	NA	NA	NA	NA	2100	2381	2330	NA	NA	NA	1	2	1	1	
SR4	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:27	4	S	1	3	3	0.26	0.28	0.011	0.012	0.011	0.012	NA	NA	NA	NA	NA	NA	2000	2280	2330	NA	NA	NA	1	2	1	1	
SR4	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:27	4	M	1	1	1	0.26	0.29	0.011	0.012	0.011	0.012	NA	NA	NA	NA	NA	NA	2600	2280	2330	NA	NA	NA	1	2	1	1	
SR4	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:27	4	M	2	2	2	0.32	0.29	0.013	0.012	0.013	0.012	NA	NA	NA	NA	NA	NA	2600	2280	2330	NA	NA	NA	1	2	1	1	
SR4	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:27	4	B	3	1	4	0.26	0.29	0.011	0.012	0.011	0.012	NA	NA	NA	NA	NA	NA	2000	2280	2330	NA	NA	NA	1	2	1	1	
SR4	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:27	4	B	3	2	4	0.32	0.29	0.013	0.012	0.013	0.012	NA	NA	NA	NA	NA	NA	2600	2280	2330	NA	NA	NA	1	2	1	1	
SR4	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:27	4	B	3	3	3	0.26	0.29	0.011	0.012	0.011	0.012	NA	NA	NA	NA	NA	NA	2000	2280	2330	NA	NA	NA	1	2	1	1	
SR5	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:28	12	S	1	1	4	NA	NA	NA	NA	NA	NA	0.26	0.58	0.04	0.88	0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:28	12	S	1	2	4	NA	NA	NA	NA	NA	NA	0.27	0.66	0.04	0.97	0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:28	12	S	1	3	3	NA	NA	NA	NA	NA	NA	0.27	0.56	0.04	0.87	0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:28	12	M	6	1	3	NA	NA	NA	NA	NA	NA	0.26	0.59	0.04	0.89	0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:28	12	M	6	2	3	NA	NA	NA	NA	NA	NA	0.27	0.61	0.04	0.92	0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:28	12	M	6	3	3	NA	NA	NA	NA	NA	NA	0.29	0.59	0.04	0.92	0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:28	12	B	11	1	4	NA	NA	NA	NA	NA	NA	0.26	0.66	0.04	0.96	0.90	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:28	12	B	11	2	3	NA	NA	NA	NA	NA	NA	0.28	0.56	0.04	0.88	0.90	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	29/6/2019	Mid-Ebb	Cloudy	Moderate	12:28	12	B	11	3	3	NA	NA	NA	NA	NA	NA	0.27	0.56	0.04	0.87	0.90	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR12	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:10	14	S	1	1	4	0.23	0.23	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	2600	2392	2651	NA	NA	NA	<1	<1	1	1	
SR12	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:10	14	S	1	2	4	0.23	0.23	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	2200	2392	2651	NA	NA	NA	<1	<1	1	1	
SR12	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:10	14	S	1	3	3	0.23	0.23	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	2500	3674	2651	NA	NA	NA	<1	<1	1	1	
SR12	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:10	14	M	7	1	3	0.25	0.24	0.008	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	5400	3674	2651	NA	NA	NA	<1	<1	1	1	
SR12	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:10	14	M	7	2	3	0.22	0.24	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	2500	3674	2651	NA	NA	NA	<1	<1	1	1	
SR12	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:10	14	M	7	3	3	0.23	0.22	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	1800	2121	2651	NA	NA	NA	<1	<1	1	1	
SR12	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:10	14	B	13	1	4	0.23	0.22	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	2500	2121	2651	NA	NA	NA	<1	<1	1	1	
SR12	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:10	14	B	13	2	3	0.21	0.22	0.006	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	1800	2121	2651	NA	NA	NA	<1	<1	1	1	
SR12	29/6/2019	Mid-Ebb	Cloudy	Moderate	11:10	14	B	13	3	3	0.23	0.22	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	2500	2121	2651	NA	NA	NA	<1	<1	1	1	
SR13	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:50	16	S	1	1	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:50	16	S	1	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:50	16	S	1	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:50	16	M	8	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:50	16	M	8	2	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:50	16	M	8	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:50	16	B	15	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:50	16	B	15	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	29/6/2019	Mid-Ebb	Cloudy	Moderate	10:50	16	B	15	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.







Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																													
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)			TIN-Nitrate (mg/L-N)			TIN-Nitrite (mg/L-N)			Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.			
C1A	2/7/2019	Mid-Flood	Cloudy	Moderate	15:40	28	S	1	1	12	0.13			0.020			0.13	0.38	0.04	0.55				12			<0.5			2									
C1A	2/7/2019	Mid-Flood	Cloudy	Moderate	15:40	28	S	1	2	11	0.14	0.14		0.021	0.021		0.14	0.41	0.04	0.59				2	5		<0.5	0.50		1	2								
C1A	2/7/2019	Mid-Flood	Cloudy	Moderate	15:40	28	S	1	3							0.14	0.41	0.04	0.59																				
C1A	2/7/2019	Mid-Flood	Cloudy	Moderate	15:40	28	M	14	1	13	0.15			0.017			0.15	0.42	0.04	0.61				6			<0.5			1									
C1A	2/7/2019	Mid-Flood	Cloudy	Moderate	15:40	28	M	14	2	13	0.14	0.15	0.14	0.015	0.016	0.016	0.14	0.41	0.04	0.59				8	7	8	<0.5	0.50		1	1	1							
C1A	2/7/2019	Mid-Flood	Cloudy	Moderate	15:40	28	M	14	3							0.13	0.41	0.04	0.58																				
C1A	2/7/2019	Mid-Flood	Cloudy	Moderate	15:40	28	B	27	1	12	0.13			0.012			0.13	0.41	0.04	0.58				11			<0.5			1									
C1A	2/7/2019	Mid-Flood	Cloudy	Moderate	15:40	28	B	27	2	10	0.13	0.13		0.012	0.012		0.13	0.41	0.04	0.58				18	14		<0.5	0.50		1	1	1							
C1A	2/7/2019	Mid-Flood	Cloudy	Moderate	15:40	28	B	27	3							0.15	0.41	0.04	0.60																				
C2A	2/7/2019	Mid-Flood	Cloudy	Moderate	17:13	13	S	1	1	11	0.18			0.028			0.18	0.16	0.02	0.36				3			<0.5			2									
C2A	2/7/2019	Mid-Flood	Cloudy	Moderate	17:13	13	S	1	2	11	0.18	0.18		0.028	0.028		0.18	0.16	0.02	0.36				ND	2		<0.5	0.50		1	2								
C2A	2/7/2019	Mid-Flood	Cloudy	Moderate	17:13	13	S	1	3							0.19	0.16	0.02	0.37																				
C2A	2/7/2019	Mid-Flood	Cloudy	Moderate	17:13	13	M	6.5	1	13	0.18			0.014			0.18	0.16	0.02	0.36				ND			<0.5			2									
C2A	2/7/2019	Mid-Flood	Cloudy	Moderate	17:13	13	M	6.5	2	11	0.18	0.18	0.18	0.014	0.014	0.017	0.18	0.16	0.02	0.36					1	2		<0.5	0.50	0.50	1	1	2						
C2A	2/7/2019	Mid-Flood	Cloudy	Moderate	17:13	13	M	6.5	3							0.18	0.15	0.02	0.35																				
C2A	2/7/2019	Mid-Flood	Cloudy	Moderate	17:13	13	B	12	1	12	0.19			0.010			0.19	0.16	0.02	0.37				1			<0.5			1									
C2A	2/7/2019	Mid-Flood	Cloudy	Moderate	17:13	13	B	12	2	12	0.18	0.19		0.010	0.010		0.18	0.15	0.02	0.35				3	2		<0.5	0.50		2	2								
C2A	2/7/2019	Mid-Flood	Cloudy	Moderate	17:13	13	B	12	3							0.20	0.15	0.02	0.37																				
G2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:17	12	S	1	1	13	NA			NA			0.20	0.25	0.03	0.48				NA	NA		NA	NA		NA	NA	NA							
G2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:17	12	S	1	2	13	NA	NA		NA	NA		0.16	0.24	0.03	0.43				NA	NA		NA	NA		NA	NA	NA							
G2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:17	12	S	1	3							0.19	0.26	0.03	0.48																				
G2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:17	12	M	6	1	11	NA			NA			0.16	0.24	0.03	0.43				NA	NA		NA	NA		NA	NA	NA							
G2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:17	12	M	6	2	12	NA	NA	NA	NA	NA	NA	0.18	0.26	0.03	0.47				NA	NA		NA	NA		NA	NA	NA							
G2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:17	12	M	6	3							0.19	0.27	0.03	0.49																				
G2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:17	12	B	11	1	11	NA			NA			0.18	0.26	0.03	0.47				NA	NA		NA	NA		NA	NA	NA							
G2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:17	12	B	11	2	13	NA	NA		NA	NA		0.18	0.26	0.03	0.47				NA	NA		NA	NA		NA	NA	NA							
G2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:17	12	B	11	3							0.17	0.24	0.03	0.44																				
SR2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:10	9	S	1	1	11	0.16			0.023			NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	NA							
SR2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:10	9	S	1	2	11	0.16	0.16		0.023	0.023		NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	NA							
SR2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:10	9	S	1	3							NA	NA	NA	NA																				
SR2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:10	9	M	4.5	1	12	0.17			0.021			NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	NA							
SR2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:10	9	M	4.5	2	12	0.17	0.17	0.17	0.021	0.021	0.021	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	NA							
SR2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:10	9	M	4.5	3							NA	NA	NA	NA																				
SR2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:10	9	B	8	1	11	0.17			0.019			NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	NA							
SR2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:10	9	B	8	2	11	0.16	0.17		0.018	0.019	0.019	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	NA							
SR2	2/7/2019	Mid-Flood	Cloudy	Moderate	16:10	9	B	8	3							NA	NA	NA	NA																				
SR3	2/7/2019	Mid-Flood	Cloudy	Moderate	16:24	8	S	1	1	11	0.16			0.022			NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	NA							
SR3	2/7/2019	Mid-Flood	Cloudy	Moderate	16:24	8	S	1	2	10	0.18	0.17		0.023			NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	NA							
SR3	2/7/2019	Mid-Flood	Cloudy	Moderate	16:24	8	S	1	3							NA	NA	NA	NA																				
SR3	2/7/2019	Mid-Flood	Cloudy	Moderate	16:24	8	M	4	1	8	0.16			0.019			NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	NA							
SR3	2/7/2019	Mid-Flood	Cloudy	Moderate	16:24	8	M	4	2	10	0.18	0.17	0.18	0.021	0.020	0.021	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	NA							
SR3	2/7/2019	Mid-Flood	Cloudy	Moderate	16:24	8	M	4	3							NA	NA	NA	NA																				
SR3	2/7/2019	Mid-Flood	Cloudy	Moderate	16:24	8	B	7	1	9	0.18			0.019			NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	NA							
SR3	2/7/2019	Mid-Flood	Cloudy	Moderate	16:24	8	B	7	2	9	0.21	0.20		0.022	0.021	0.021	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	NA							
SR3	2/7/2019	Mid-Flood	Cloudy	Moderate	16:24	8	B	7	3							NA	NA	NA	NA																				

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																									
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)				
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.		
SR4	2/7/2019	Mid-Flood	Cloudy	Moderate	16:35	4	S	1	1	9	0.18	0.18	0.18	0.021	0.021	0.021	0.021	0.021	0.021	NA	NA	NA	NA	NA	3100	5840	9666	<0.5	<0.5	<0.5	1	<1	1		
SR4	2/7/2019	Mid-Flood	Cloudy	Moderate	16:35	4	S	1	2	9	0.18	0.18	0.18	0.021	0.021	0.021	0.021	0.021	0.021	NA	NA	NA	NA	NA	11000	5840	9666	<0.5	<0.5	<0.5	1	<1	1		
SR4	2/7/2019	Mid-Flood	Cloudy	Moderate	16:35	4	S	1	3	9	0.18	0.18	0.18	0.021	0.021	0.021	0.021	0.021	0.021	NA	NA	NA	NA	NA	11000	5840	9666	<0.5	<0.5	<0.5	1	<1	1		
SR4	2/7/2019	Mid-Flood	Cloudy	Moderate	16:35	4	M			1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9666	9666	9666	0.50	0.50	0.50				1
SR4	2/7/2019	Mid-Flood	Cloudy	Moderate	16:35	4	M			2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9666	9666	9666	0.50	0.50	0.50				1
SR4	2/7/2019	Mid-Flood	Cloudy	Moderate	16:35	4	M			3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9666	9666	9666	0.50	0.50	0.50				1
SR4	2/7/2019	Mid-Flood	Cloudy	Moderate	16:35	4	B	3	1	9	0.17	0.17	0.17	0.023	0.023	0.023	0.023	0.023	0.023	NA	NA	NA	NA	NA	16000	16000	16000	<0.5	<0.5	<0.5	<1	<1	1		
SR4	2/7/2019	Mid-Flood	Cloudy	Moderate	16:35	4	B	3	2	10	0.16	0.16	0.16	0.021	0.021	0.021	0.021	0.021	0.021	NA	NA	NA	NA	NA	16000	16000	16000	<0.5	<0.5	<0.5	<1	<1	1		
SR4	2/7/2019	Mid-Flood	Cloudy	Moderate	16:35	4	B	3	3	10	0.16	0.16	0.16	0.021	0.021	0.021	0.021	0.021	0.021	NA	NA	NA	NA	NA	16000	16000	16000	<0.5	<0.5	<0.5	<1	<1	1		
SR5	2/7/2019	Mid-Flood	Cloudy	Moderate	15:58	11	S	1	1	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.17	0.32	0.03	0.52	0.52	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	2/7/2019	Mid-Flood	Cloudy	Moderate	15:58	11	S	1	2	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.17	0.32	0.03	0.52	0.52	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	2/7/2019	Mid-Flood	Cloudy	Moderate	15:58	11	S	1	3	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.16	0.32	0.03	0.51	0.51	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	2/7/2019	Mid-Flood	Cloudy	Moderate	15:58	11	M	5.5	1	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15	0.32	0.03	0.50	0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	2/7/2019	Mid-Flood	Cloudy	Moderate	15:58	11	M	5.5	2	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18	0.32	0.04	0.54	0.54	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	2/7/2019	Mid-Flood	Cloudy	Moderate	15:58	11	M	5.5	3	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.19	0.32	0.03	0.54	0.54	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	2/7/2019	Mid-Flood	Cloudy	Moderate	15:58	11	B	10	1	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15	0.32	0.03	0.50	0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	2/7/2019	Mid-Flood	Cloudy	Moderate	15:58	11	B	10	2	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.19	0.33	0.03	0.55	0.55	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	2/7/2019	Mid-Flood	Cloudy	Moderate	15:58	11	B	10	3	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.17	0.33	0.03	0.53	0.53	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR12	2/7/2019	Mid-Flood	Cloudy	Moderate	16:49	15	S	1	1	8	0.17	0.17	0.17	0.015	0.015	0.015	0.015	0.015	0.015	NA	NA	NA	NA	NA	750	908	951	<0.5	<0.5	<0.5	<1	<1	1		
SR12	2/7/2019	Mid-Flood	Cloudy	Moderate	16:49	15	S	1	2	8	0.17	0.17	0.17	0.015	0.015	0.015	0.015	0.015	0.015	NA	NA	NA	NA	NA	1100	908	951	<0.5	<0.5	<0.5	<1	<1	1		
SR12	2/7/2019	Mid-Flood	Cloudy	Moderate	16:49	15	S	1	3	8	0.17	0.17	0.17	0.015	0.015	0.015	0.015	0.015	0.015	NA	NA	NA	NA	NA	1100	908	951	<0.5	<0.5	<0.5	<1	<1	1		
SR12	2/7/2019	Mid-Flood	Cloudy	Moderate	16:49	15	M	7.5	1	9	0.17	0.17	0.17	0.014	0.014	0.014	0.014	0.014	0.014	NA	NA	NA	NA	NA	1000	1183	951	<0.5	<0.5	<0.5	1	1	1		
SR12	2/7/2019	Mid-Flood	Cloudy	Moderate	16:49	15	M	7.5	2	10	0.17	0.17	0.17	0.014	0.014	0.014	0.014	0.014	0.014	NA	NA	NA	NA	NA	1400	1183	951	<0.5	<0.5	<0.5	1	1	1		
SR12	2/7/2019	Mid-Flood	Cloudy	Moderate	16:49	15	M	7.5	3	10	0.17	0.17	0.17	0.014	0.014	0.014	0.014	0.014	0.014	NA	NA	NA	NA	NA	1400	1183	951	<0.5	<0.5	<0.5	1	1	1		
SR12	2/7/2019	Mid-Flood	Cloudy	Moderate	16:49	15	B	14	1	10	0.16	0.16	0.16	0.012	0.012	0.012	0.012	0.012	0.012	NA	NA	NA	NA	NA	880	801	801	<0.5	<0.5	<0.5	1	1	1		
SR12	2/7/2019	Mid-Flood	Cloudy	Moderate	16:49	15	B	14	2	11	0.16	0.16	0.16	0.012	0.012	0.012	0.012	0.012	0.012	NA	NA	NA	NA	NA	730	801	801	<0.5	<0.5	<0.5	1	1	1		
SR12	2/7/2019	Mid-Flood	Cloudy	Moderate	16:49	15	B	14	3	11	0.16	0.16	0.16	0.012	0.012	0.012	0.012	0.012	0.012	NA	NA	NA	NA	NA	730	801	801	<0.5	<0.5	<0.5	1	1	1		
SR13	2/7/2019	Mid-Flood	Cloudy	Moderate	17:01	14	S	1	1	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Flood	Cloudy	Moderate	17:01	14	S	1	2	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Flood	Cloudy	Moderate	17:01	14	S	1	3	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Flood	Cloudy	Moderate	17:01	14	M	7	1	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Flood	Cloudy	Moderate	17:01	14	M	7	2	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Flood	Cloudy	Moderate	17:01	14	M	7	3	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Flood	Cloudy	Moderate	17:01	14	B	13	1	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Flood	Cloudy	Moderate	17:01	14	B	13	2	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Flood	Cloudy	Moderate	17:01	14	B	13	3	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																																
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)											
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.							
SR4	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:41	4	S	1	1	8.36	8.37	26.10	26.09	27.76	27.74	96.5	96.4	6.57	6.53	6.55	2.7	2.7	0.18	0.10	0.14	0.021	0.012	0.016	NA	NA	NA	NA	NA	NA	NA	NA	NA					
SR4	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:41	4	S	1	3												6.55																					
SR4	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:41	4	M		1																																	
SR4	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:41	4	M		2																																	
SR4	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:41	4	M		3																																	
SR4	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:41	4	B	3	1	8.36	8.36	26.27	26.29	27.21	27.21	95.2	95.1	6.49	6.47	6.48	2.3	2.4	0.18	0.18	0.18	0.020	0.020	0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR4	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:41	4	B	3	2	8.35	8.36	26.30	26.29	27.22	27.21	95.0	95.1	6.47	6.48	6.48	2.4	2.4	0.18	0.18	0.18	0.020	0.020	0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR4	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:41	4	B	3	3																																	
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	S	1	1	8.37	8.36	21.34	21.37	28.69	28.79	97.8	97.7	6.72	6.71	6.72	1.3	1.3	NA	NA	NA	NA	NA	NA	NA	0.19	0.30	0.03	0.52	0.19	0.31	0.03	0.53	0.53				
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	S	1	2	8.35	8.36	21.39	21.37	28.90	28.79	97.7	97.8	6.71	6.72	6.72	1.3	1.3	NA	NA	NA	NA	NA	NA	NA	0.19	0.31	0.03	0.53	0.18	0.32	0.03	0.53	0.20	0.32	0.04	0.56	0.56
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	M		5.5	1	8.31	8.32	22.21	22.27	28.30	28.29	84.5	84.6	5.82	5.83	5.83	2.4	2.4	NA	NA	NA	NA	NA	NA	NA	0.21	0.32	0.04	0.57	0.21	0.31	0.04	0.56	0.56			
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	M		5.5	2	8.32	8.32	22.32	22.27	28.29	28.29	84.6	84.6	5.83	5.83	5.83	2.4	2.4	NA	NA	NA	NA	NA	NA	NA	0.21	0.32	0.04	0.57	0.21	0.32	0.04	0.56	0.56			
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	M		5.5	3																																
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	B	10	1	8.24	8.26	23.28	23.29	28.00	28.00	79.1	79.5	5.44	5.47	5.46	3.2	3.1	NA	NA	NA	NA	NA	NA	NA	0.22	0.31	0.05	0.58	0.23	0.32	0.05	0.60	0.58				
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	B	10	2	8.27	8.26	23.29	23.29	27.99	28.00	79.5	79.3	5.47	5.47	5.46	3.1	3.1	NA	NA	NA	NA	NA	NA	NA	0.22	0.30	0.04	0.56	0.22	0.30	0.04	0.56	0.58				
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	B	10	3																																	
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	S	1	1	8.24	8.25	26.97	26.97	27.24	27.24	73.2	73.2	4.99	4.99	4.99	1.4	1.4	0.17	0.17	0.17	0.015	0.015	0.015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	S	1	2	8.26	8.25	26.96	26.97	27.24	27.24	73.2	73.2	4.99	4.99	4.99	1.4	1.4	0.17	0.17	0.17	0.015	0.015	0.015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	S	1	3																																	
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	M		7.5	1	8.19	8.21	27.31	27.32	27.08	27.08	66.8	66.6	4.56	4.53	4.55	3.0	3.0	0.18	0.18	0.18	0.014	0.014	0.014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	M		7.5	2	8.22	8.21	27.33	27.32	27.08	27.08	66.6	66.7	4.53	4.55	4.55	3.0	3.0	0.18	0.18	0.18	0.014	0.014	0.014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	M		7.5	3																																
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	B	14	1	8.16	8.17	27.82	27.84	26.89	26.89	58.7	58.5	4.01	3.98	4.00	3.7	3.7	0.21	0.20	0.21	0.015	0.015	0.015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	B	14	3																																	
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	S	1	1	8.37	8.38	27.23	27.23	27.50	27.51	102.5	103.0	6.96	7.00	6.98	1.5	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	S	1	2	8.39	8.38	27.22	27.23	27.51	27.50	103.0	102.8	7.00	6.98	6.98	1.5	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	S	1	3																																	
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	M		7	1	8.21	8.22	27.65	27.67	27.14	27.13	72.0	72.4	4.91	4.95	4.93	1.3	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	M		7	2	8.22	8.22	27.68	27.67	27.13	27.13	72.4	72.2	4.95	4.93	4.93	1.3	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	M		7	3																																
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	B	13	1	8.17	8.17	28.04	28.02	26.92	26.92	58.3	58.2	3.97	3.94	3.96	2.2	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	B	13	2	8.16	8.17	28.00	28.02	26.92	26.92	58.0	58.2	3.94	3.94	3.96	2.3	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																													
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)			TIN-Nitrate (mg/L-N)			TIN-Nitrite (mg/L-N)			Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.			
C1A	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:31	28	S	1	1	12	0.13			0.018	0.018		0.13	0.37	0.04	0.54				15			<0.5			1									
C1A	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:31	28	S	1	2	12	0.13	0.13		0.018	0.018		0.13	0.39	0.04	0.56	0.55			14	14		<0.5	0.50		1	1								
C1A	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:31	28	S	1	3							0.13	0.39	0.04	0.56								<0.5												
C1A	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:31	28	M	14	1	13	0.12			0.014	0.014		0.12	0.39	0.04	0.55	0.56			13			<0.5			<1									
C1A	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:31	28	M	14	2	14	0.13	0.13	0.13	0.015	0.015		0.13	0.39	0.04	0.56	0.56			14	13	14	<0.5	0.50	0.50	1	1	1							
C1A	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:31	28	M	14	3							0.13	0.39	0.04	0.56								<0.5			1									
C1A	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:31	28	B	27	1	11	0.13			0.012	0.012		0.13	0.39	0.04	0.56	0.57			16			<0.5			1									
C1A	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:31	28	B	27	2	13	0.14	0.14		0.013	0.013		0.14	0.40	0.04	0.58	0.57			12	14		<0.5	0.50		<1	1								
C1A	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:31	28	B	27	3							0.13	0.39	0.04	0.56								<0.5												
C2A	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:02	13	S	1	1	9	0.18			0.028	0.031		0.18	0.15	0.02	0.35	0.36			5			<0.5			2									
C2A	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:02	13	S	1	2	9	0.22	0.20		0.034	0.031		0.22	0.15	0.02	0.39	0.36			3	4		<0.5	0.50		2	2								
C2A	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:02	13	S	1	3							0.18	0.15	0.02	0.35								<0.5												
C2A	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:02	13	M	6.5	1	8	0.19			0.013	0.013		0.19	0.15	0.02	0.36	0.35			ND			<0.5			<1									
C2A	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:02	13	M	6.5	2	10	0.19	0.19	0.19	0.013	0.013	0.018	0.19	0.15	0.02	0.36	0.35	0.35		3	2	3	<0.5	0.50	0.50	<1	1	1							
C2A	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:02	13	M	6.5	3							0.18	0.14	0.02	0.34								<0.5												
C2A	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:02	13	B	12	1	10	0.18			0.010	0.009		0.18	0.15	0.02	0.35	0.35			3			<0.5			<1									
C2A	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:02	13	B	12	2	12	0.17	0.18		0.009	0.009		0.17	0.14	0.02	0.33	0.35			3	3		<0.5	0.50		<1	1								
C2A	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:02	13	B	12	3							0.19	0.15	0.02	0.36								<0.5												
G2	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:59	12	S	1	1	13	NA			NA	NA		0.19	0.24	0.03	0.46	0.47			NA	NA		NA	NA		NA	NA								
G2	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:59	12	S	1	2	12	NA	NA		NA	NA		0.21	0.25	0.03	0.49	0.47			NA	NA		NA	NA		NA	NA								
G2	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:59	12	S	1	3							0.19	0.25	0.03	0.47								NA	NA		NA	NA								
G2	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:59	12	M	6	1	10	NA			NA	NA		0.20	0.25	0.03	0.48	0.48			NA	NA		NA	NA		NA	NA								
G2	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:59	12	M	6	2	12	NA	NA		NA	NA		0.18	0.26	0.03	0.47	0.48	0.48		NA	NA		NA	NA		NA	NA								
G2	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:59	12	M	6	3							0.19	0.26	0.03	0.48								NA	NA		NA	NA								
G2	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:59	12	B	11	1	12	NA			NA	NA		0.19	0.26	0.03	0.48	0.48			NA	NA		NA	NA		NA	NA								
G2	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:59	12	B	11	2	11	NA	NA		NA	NA		0.19	0.27	0.03	0.49	0.48			NA	NA		NA	NA		NA	NA								
G2	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:59	12	B	11	3							0.18	0.26	0.03	0.47								NA	NA		NA	NA								
SR2	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:06	9	S	1	1	10	0.15			0.021	0.021		NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA								
SR2	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:06	9	S	1	2	9	0.14	0.15		0.020	0.021		NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA								
SR2	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:06	9	S	1	3							NA	NA	NA	NA	NA							NA	NA		NA	NA								
SR2	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:06	9	M	4.5	1	9	0.15			0.019	0.019		NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA								
SR2	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:06	9	M	4.5	2	8	0.16	0.16	0.16	0.019	0.019	0.020	NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA								
SR2	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:06	9	M	4.5	3							NA	NA	NA	NA	NA							NA	NA		NA	NA								
SR2	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:06	9	B	8	1	9	0.17			0.019	0.019		NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA								
SR2	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:06	9	B	8	2	8	0.16	0.17		0.018	0.019		NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA								
SR2	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:06	9	B	8	3							NA	NA	NA	NA	NA							NA	NA		NA	NA								
SR3	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:50	8	S	1	1	6	0.18			0.024	0.023		NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA								
SR3	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:50	8	S	1	2	6	0.16	0.17		0.021	0.023		NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA								
SR3	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:50	8	S	1	3							NA	NA	NA	NA	NA							NA	NA		NA	NA								
SR3	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:50	8	M	4	1	6	0.17			0.020	0.021		NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA								
SR3	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:50	8	M	4	2	7	0.19	0.18	0.17	0.022	0.021	0.020	NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA								
SR3	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:50	8	M	4	3							NA	NA	NA	NA	NA							NA	NA		NA	NA								
SR3	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:50	8	B	7	1	6	0.15			0.016	0.016		NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA								
SR3	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:50	8	B	7	2	7	0.16	0.16		0.017	0.016	0.016	NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA								
SR3	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:50	8	B	7	3							NA	NA	NA	NA	NA							NA	NA		NA	NA								

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:41	4	S	1	1	7	0.17	0.17	0.17	0.020	0.019	0.019	NA	NA	NA	NA	NA	NA	8400	5869	8035	<0.5	<0.5	<0.5	<1	1	1		
SR4	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:41	4	S	1	2	7	0.16	0.17	0.17	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	4100	5869	8035	<0.5	<0.5	<0.5	1	1	1		
SR4	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:41	4	S	1	3	7	0.16	0.17	0.17	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	4100	5869	8035	<0.5	<0.5	<0.5	1	1	1		
SR4	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:41	4	M	1	1	7	0.17	0.17	0.17	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	11000	11000	11000	<0.5	<0.5	<0.5	1	1	1		
SR4	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:41	4	M	2	2	7	0.17	0.17	0.17	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	11000	11000	11000	<0.5	<0.5	<0.5	1	1	1		
SR4	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:41	4	M	3	1	7	0.17	0.17	0.17	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	11000	11000	11000	<0.5	<0.5	<0.5	1	1	1		
SR4	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:41	4	B	3	2	7	0.16	0.17	0.17	0.018	0.018	0.018	NA	NA	NA	NA	NA	NA	11000	11000	11000	<0.5	<0.5	<0.5	1	1	1		
SR4	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:41	4	B	3	3	7	0.16	0.17	0.17	0.018	0.018	0.018	NA	NA	NA	NA	NA	NA	11000	11000	11000	<0.5	<0.5	<0.5	1	1	1		
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	S	1	1	7	NA	NA	NA	NA	NA	NA	0.19	0.31	0.04	0.54	0.53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	S	1	2	6	NA	NA	NA	NA	NA	NA	0.16	0.32	0.03	0.51	0.53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	S	1	3	7	NA	NA	NA	NA	NA	NA	0.18	0.32	0.03	0.53	0.53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	M	5.5	1	6	NA	NA	NA	NA	NA	NA	0.21	0.32	0.03	0.56	0.53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	M	5.5	2	8	NA	NA	NA	NA	NA	NA	0.17	0.32	0.04	0.53	0.54	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	M	5.5	3	7	NA	NA	NA	NA	NA	NA	0.18	0.32	0.04	0.54	0.52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	B	10	1	9	NA	NA	NA	NA	NA	NA	0.18	0.32	0.03	0.53	0.52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	B	10	2	7	NA	NA	NA	NA	NA	NA	0.18	0.32	0.03	0.53	0.52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	2/7/2019	Mid-Ebb	Cloudy	Moderate	13:19	11	B	10	3	8	NA	NA	NA	NA	NA	NA	0.16	0.32	0.03	0.51	0.52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	S	1	1	4	0.17	0.17	0.17	0.015	0.015	0.015	NA	NA	NA	NA	NA	NA	470	490	671	<0.5	<0.5	<0.5	1	1	1		
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	S	1	2	5	0.17	0.17	0.17	0.015	0.015	0.015	NA	NA	NA	NA	NA	NA	510	490	671	<0.5	<0.5	<0.5	1	1	1		
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	S	1	3	5	0.17	0.17	0.17	0.015	0.015	0.015	NA	NA	NA	NA	NA	NA	1000	877	671	<0.5	<0.5	<0.5	1	1	1		
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	M	7.5	1	4	0.17	0.17	0.17	0.014	0.013	0.013	NA	NA	NA	NA	NA	NA	770	877	671	<0.5	<0.5	<0.5	1	1	1		
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	M	7.5	2	5	0.16	0.17	0.16	0.013	0.013	0.013	NA	NA	NA	NA	NA	NA	770	877	671	<0.5	<0.5	<0.5	1	1	1		
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	M	7.5	3	5	0.16	0.17	0.16	0.013	0.013	0.013	NA	NA	NA	NA	NA	NA	770	877	671	<0.5	<0.5	<0.5	1	1	1		
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	B	14	1	6	0.16	0.16	0.16	0.012	0.011	0.011	NA	NA	NA	NA	NA	NA	620	704	704	<0.5	<0.5	<0.5	1	1	1		
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	B	14	2	6	0.15	0.16	0.15	0.011	0.011	0.011	NA	NA	NA	NA	NA	NA	800	704	704	<0.5	<0.5	<0.5	1	1	1		
SR12	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:29	15	B	14	3	6	0.15	0.16	0.15	0.011	0.011	0.011	NA	NA	NA	NA	NA	NA	800	704	704	<0.5	<0.5	<0.5	1	1	1		
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	S	1	1	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	S	1	2	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	S	1	3	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	M	7	1	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	M	7	2	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	M	7	3	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	B	13	1	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	B	13	2	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	2/7/2019	Mid-Ebb	Cloudy	Moderate	12:17	14	B	13	3	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																													
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)						
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.				
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	S	1	1	8.20			21.14		28.25		83.8		5.91			3.6				0.25		0.25		0.04	0.72								
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	S	1	2	8.20	8.20	21.17	21.16	28.25	28.25	83.9	83.9	5.91	5.91			5.74	3.6	3.6		0.26	0.26	0.023	0.023	0.26	0.43	0.04	0.73	0.72					
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	S	1	3																														
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	M	14	1	8.20		23.43		27.78		79.5		5.57					3.1			0.28		0.023		0.28	0.43	0.04	0.75						
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	M	14	2	8.18	8.19	23.44	23.44	27.78	27.78	79.3	79.4	5.55	5.56				3.1	3.1		0.28	0.28	0.023	0.023	0.28	0.44	0.04	0.76	0.76					
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	M	14	3																														
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	B	27	1	8.22		28.01		27.26		75.4		5.20					4.3			0.29		0.024		0.29	0.45	0.04	0.78						
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	B	27	2	8.21	8.22	28.00	28.01	27.26	27.26	75.4	75.4	5.20	5.20				4.3	4.3		0.30	0.30	0.025	0.024	0.30	0.46	0.04	0.80	0.79					
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	B	27	3																														
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	S	1	1	8.26		24.66		27.90		87.5		5.98					1.8			0.22		0.021		0.22	0.32	0.04	0.58						
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	S	1	2	8.27	8.27	24.67	24.67	27.90	27.90	87.4	87.5	5.98	5.98				1.7	1.7		0.22	0.22	0.021	0.021	0.22	0.32	0.04	0.58	0.58					
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	S	1	3																														
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	M	6.5	1	8.21		25.64		27.37		68.5		4.69					2.1			0.23		0.019		0.23	0.32	0.05	0.60						
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	M	6.5	2	8.22	8.22	25.66	25.65	27.33	27.35	68.4	68.5	4.69	4.69				2.1	2.1		0.24	0.24	0.020	0.020	0.24	0.33	0.05	0.62	0.62	0.62				
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	M	6.5	3																														
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	B	12	1	8.19		25.87		27.27		63.0		4.33					1.7			0.22		0.017		0.25	0.37	0.06	0.68						
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	B	12	2	8.16	8.18	25.86	25.87	27.27	27.27	63.4	63.2	4.34	4.34				1.7	1.7		0.26	0.26	0.020	0.018	0.26	0.35	0.05	0.66	0.67	0.67				
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	B	12	3																														
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	S	1	1	8.18		22.41		27.94		82.5		5.83					2.3			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	S	1	2	8.17	8.18	22.40	22.41	27.94	27.94	82.8	82.7	5.86	5.85				2.3	2.3		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	S	1	3																														
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	M	6	1	8.18		26.06		27.58		75.6		5.24					2.3			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	M	6	2	8.17	8.18	26.05	26.06	27.58	27.58	75.3	75.5	5.20	5.22				2.2	2.3		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	M	6	3																														
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	B	11	1	8.19		27.52		27.30		74.2		5.13					4.0			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	B	11	2	8.20	8.20	27.56	27.54	27.30	27.30	74.0	74.1	5.10	5.12				4.0	4.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	B	11	3																														
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	S	1	1	8.15		22.83		27.77		78.2		5.51					2.3			0.29		0.022		0.29	0.45	0.04	0.77						
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	S	1	2	8.15	8.15	22.85	22.84	27.77	27.77	78.1	78.2	5.50	5.51				2.3	2.3		0.29	0.29	0.022	0.022	0.29	0.45	0.04	0.78	0.78					
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	S	1	3																														
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	M	4.5	1	8.19		26.57		27.44		74.0		5.13					2.2			0.27		0.021		0.27	0.45	0.04	0.78						
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	M	4.5	2	8.16	8.18	26.53	26.55	27.45	27.44	74.2	74.1	5.15	5.14				2.2	2.2		0.25	0.25	0.019	0.020	0.25	0.45	0.04	0.78	0.79	0.79				
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	M	4.5	3																														
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	B	8	1	8.17		27.41		27.35		72.6		5.00					2.3			0.26		0.019		0.29	0.48	0.04	0.81						
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	B	8	2	8.16	8.18	27.40	27.41	27.35	27.35	72.9	72.8	5.05	5.03				2.3	2.3		0.27	0.27	0.020	0.020	0.29	0.49	0.04	0.82	0.81					
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	B	8	3																														
SR3	4/7/2019	Mid-Flood	Fine	Moderate	7:44	8	S	1	1	8.21		23.70		27.68		70.0		4.93					3.6			0.26		0.022		0.26	0.46	0.04	0.81						
SR3	4/7/2019	Mid-Flood	Fine	Moderate	7:44	8	S	1	2	8.21	8.21	23.71	23.71	27.67	27.68	70.1	70.1	4.92	4.93				3.7	3.7		0.26	0.26	0.022	0.022	0.26	0.46	0.04	0.81	0.81					
SR3	4/7/2019	Mid-Flood	Fine	Moderate	7:44	8	S	1	3																														
SR3	4/7/2019	Mid-Flood	Fine	Moderate	7:44	8	M	4	1	8.19		24.98		27.41		61.5		4.85					4.0			0.23		0.018		0.23	0.46	0.04	0.82						
SR3	4/7/2019	Mid-Flood	Fine	Moderate	7:44	8	M	4	2	8.18	8.19	24.96	24.97	27.42	27.41	61.7	61.6	4.87	4.86				4.0	4.0		0.24	0.24	0.019	0.019										

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																									
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)				
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.
SR4	4/7/2019	Mid-Flood	Fine	Moderate	7:35	4	S	1	1	8.18	23.82	27.52	67.2	4.64	1.7	0.28	0.022	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR4	4/7/2019	Mid-Flood	Fine	Moderate	7:35	4	S	1	2	8.18	23.83	27.52	67.4	4.66	1.8	0.28	0.022	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR4	4/7/2019	Mid-Flood	Fine	Moderate	7:35	4	S	1	3									NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR4	4/7/2019	Mid-Flood	Fine	Moderate	7:35	4	M											NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR4	4/7/2019	Mid-Flood	Fine	Moderate	7:35	4	M											NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR4	4/7/2019	Mid-Flood	Fine	Moderate	7:35	4	M											NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR4	4/7/2019	Mid-Flood	Fine	Moderate	7:35	4	M	3	1	8.17	24.03	27.48	66.0	4.55	3.7	0.25	0.019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR4	4/7/2019	Mid-Flood	Fine	Moderate	7:35	4	B	3	2	8.17	24.05	27.49	65.8	4.52	3.7	0.23	0.018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR4	4/7/2019	Mid-Flood	Fine	Moderate	7:35	4	B	3	3									NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR5	4/7/2019	Mid-Flood	Fine	Moderate	8:17	11	S	1	1	8.18	20.91	28.06	82.2	5.82	2.4	NA	NA	NA	NA	NA	NA	0.25	0.51	0.04	0.80	0.80									
SR5	4/7/2019	Mid-Flood	Fine	Moderate	8:17	11	S	1	2	8.17	20.92	28.06	82.0	5.80	2.4	NA	NA	NA	NA	NA	NA	0.26	0.51	0.04	0.81	0.80									
SR5	4/7/2019	Mid-Flood	Fine	Moderate	8:17	11	S	1	3									NA	NA	NA	NA	0.25	0.51	0.04	0.80	0.80									
SR5	4/7/2019	Mid-Flood	Fine	Moderate	8:17	11	M	5.5	1	8.19	24.70	26.64	78.1	5.45	3.3	NA	NA	NA	NA	NA	NA	0.27	0.53	0.04	0.84	0.84									
SR5	4/7/2019	Mid-Flood	Fine	Moderate	8:17	11	M	5.5	2	8.18	24.72	26.65	78.2	5.45	3.3	NA	NA	NA	NA	NA	NA	0.25	0.53	0.04	0.82	0.83	0.84								
SR5	4/7/2019	Mid-Flood	Fine	Moderate	8:17	11	M	5.5	3									NA	NA	NA	NA	0.26	0.53	0.04	0.83	0.83	0.84								
SR5	4/7/2019	Mid-Flood	Fine	Moderate	8:17	11	B	10	1	8.20	27.55	27.36	75.7	5.23	4.4	NA	NA	NA	NA	NA	NA	0.28	0.55	0.04	0.87	0.87									
SR5	4/7/2019	Mid-Flood	Fine	Moderate	8:17	11	B	10	2	8.20	27.56	27.36	75.7	5.23	4.4	NA	NA	NA	NA	NA	NA	0.28	0.55	0.04	0.87	0.87									
SR5	4/7/2019	Mid-Flood	Fine	Moderate	8:17	11	B	10	3									NA	NA	NA	NA	0.28	0.55	0.04	0.87	0.87									
SR12	4/7/2019	Mid-Flood	Fine	Moderate	7:34	15	S	1	1	8.19	25.21	27.41	66.2	4.55	2.9	0.25	0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR12	4/7/2019	Mid-Flood	Fine	Moderate	7:34	15	S	1	2	8.18	25.20	27.41	66.0	4.53	2.9	0.25	0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR12	4/7/2019	Mid-Flood	Fine	Moderate	7:34	15	S	1	3									NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR12	4/7/2019	Mid-Flood	Fine	Moderate	7:34	15	M	7.5	1	8.18	25.66	27.26	59.2	4.05	2.5	0.26	0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR12	4/7/2019	Mid-Flood	Fine	Moderate	7:34	15	M	7.5	2	8.18	25.68	27.26	59.1	4.05	2.5	0.25	0.019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR12	4/7/2019	Mid-Flood	Fine	Moderate	7:34	15	M	7.5	3									NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR12	4/7/2019	Mid-Flood	Fine	Moderate	7:34	15	B	14	1	8.17	25.96	27.21	57.7	3.96	2.9	0.27	0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR12	4/7/2019	Mid-Flood	Fine	Moderate	7:34	15	B	14	2	8.17	25.97	27.21	57.4	3.93	2.9	0.27	0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR12	4/7/2019	Mid-Flood	Fine	Moderate	7:34	15	B	14	3									NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	S	1	1	8.19	25.03	27.39	65.5	4.51	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	S	1	2	8.18	25.00	27.40	65.5	4.51	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	S	1	3									NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	M	7	1	8.19	25.30	27.23	63.6	4.37	2.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	M	7	2	8.17	25.29	27.23	63.5	4.36	2.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	M	7	3									NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	B	13	1	8.17	25.59	27.28	62.1	4.26	3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	B	13	2	8.16	25.61	27.28	62.4	4.30	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	B	13	3									NA	NA	NA	NA	NA	NA	NA	NA	NA	NA								

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																									
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			Urea (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)				
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.		
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	S	1	1	3	0.23	0.25	0.24	0.020	0.021	0.022	0.23	0.41	0.04	0.68	0.76	860	889	909	NA	NA	NA	NA	<1	<1	1				
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	S	1	2	3	0.25	0.24	0.26	0.020	0.021	0.022	0.25	0.47	0.04	0.76	0.78	920	909	909	NA	NA	NA	NA	<1	<1	1				
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	S	1	3		0.24	0.26	0.24	0.020	0.021	0.022	0.26	0.54	0.04	0.84	0.78	1100	1000	909	NA	NA	NA	NA	<1	<1	1	1			
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	M	14	1	3	0.24	0.26	0.24	0.020	0.021	0.022	0.24	0.46	0.04	0.74	0.78	910	1000	909	NA	NA	NA	NA	<1	<1	1	1			
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	M	14	2	3	0.27	0.26	0.26	0.020	0.021	0.022	0.27	0.47	0.04	0.78	0.78	910	1000	909	NA	NA	NA	NA	<1	<1	1				
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	M	14	3		0.26	0.28	0.26	0.021	0.023	0.024	0.26	0.52	0.04	0.82	0.83	830	845	909	NA	NA	NA	NA	<1	<1	1				
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	B	27	1	3	0.26	0.28	0.29	0.021	0.023	0.024	0.26	0.49	0.04	0.79	0.83	860	845	909	NA	NA	NA	NA	<1	<1	1				
C1A	4/7/2019	Mid-Flood	Fine	Moderate	8:30	28	B	27	2	3	0.29	0.28	0.29	0.024	0.023	0.024	0.29	0.53	0.04	0.86	0.83	860	845	909	NA	NA	NA	NA	<1	<1	1				
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	S	1	1	3	0.21	0.21	0.20	0.020	0.020	0.019	0.21	0.33	0.03	0.57	0.58	14	17	15	NA	NA	NA	NA	<1	<1	1				
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	S	1	2	4	0.20	0.21	0.20	0.019	0.020	0.019	0.20	0.38	0.03	0.61	0.58	17	15	7	NA	NA	NA	NA	<1	<1	1				
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	S	1	3		0.20	0.22	0.20	0.017	0.018	0.018	0.20	0.33	0.03	0.57	0.59	5	4	7	NA	NA	NA	NA	<1	<1	1	1			
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	M	6.5	1	3	0.20	0.22	0.23	0.017	0.018	0.019	0.20	0.34	0.03	0.57	0.59	4	4	7	NA	NA	NA	NA	<1	<1	1	1			
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	M	6.5	2	3	0.23	0.22	0.23	0.019	0.018	0.019	0.23	0.36	0.03	0.62	0.59	4	4	7	NA	NA	NA	NA	<1	<1	1	1			
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	M	6.5	3		0.20	0.22	0.20	0.019	0.018	0.019	0.19	0.34	0.03	0.56	0.59	4	5	7	NA	NA	NA	NA	<1	<1	1				
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	B	12	1	3	0.23	0.22	0.20	0.018	0.017	0.015	0.23	0.34	0.03	0.60	0.59	6	4	5	NA	NA	NA	NA	<1	<1	1				
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	B	12	2	3	0.20	0.22	0.20	0.015	0.017	0.015	0.20	0.34	0.03	0.57	0.59	4	5	7	NA	NA	NA	NA	<1	<1	1				
C2A	4/7/2019	Mid-Flood	Fine	Moderate	7:02	13	B	12	3		0.20	0.22	0.20	0.015	0.017	0.015	0.22	0.35	0.03	0.60	0.59	4	5	7	NA	NA	NA	NA	<1	<1	1				
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	S	1	1	3	NA	NA	NA	NA	NA	NA	0.27	0.48	0.04	0.79	0.76	NA	NA	NA	NA	NA	NA	NA	NA	NA					
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	S	1	2	4	NA	NA	NA	NA	NA	NA	0.25	0.44	0.04	0.73	0.76	NA	NA	NA	NA	NA	NA	NA	NA	NA					
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	S	1	3		NA	NA	NA	NA	NA	NA	0.26	0.45	0.04	0.75	0.76	NA	NA	NA	NA	NA	NA	NA	NA	NA					
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	M	6	1	3	NA	NA	NA	NA	NA	NA	0.25	0.45	0.04	0.74	0.76	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	M	6	2	3	NA	NA	NA	NA	NA	NA	0.26	0.48	0.04	0.78	0.76	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	M	6	3		NA	NA	NA	NA	NA	NA	0.26	0.46	0.04	0.76	0.76	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	B	11	1	3	NA	NA	NA	NA	NA	NA	0.25	0.49	0.04	0.78	0.77	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	B	11	2	2	NA	NA	NA	NA	NA	NA	0.27	0.45	0.04	0.76	0.77	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
G2	4/7/2019	Mid-Flood	Fine	Moderate	7:51	12	B	11	3		NA	NA	NA	NA	NA	NA	0.26	0.46	0.04	0.76	0.77	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	S	1	1	4	0.27	0.28	0.28	0.021	0.021	0.021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	S	1	2	4	0.28	0.28	0.28	0.021	0.021	0.021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	S	1	3		0.27	0.28	0.28	0.021	0.021	0.021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	M	4.5	1	3	0.27	0.28	0.28	0.021	0.021	0.021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	M	4.5	2	3	0.25	0.26	0.26	0.019	0.020	0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	M	4.5	3		0.25	0.26	0.26	0.019	0.020	0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	B	8	1	3	0.26	0.26	0.26	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	B	8	2	3	0.25	0.26	0.26	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR2	4/7/2019	Mid-Flood	Fine	Moderate	8:02	9	B	8	3		0.25	0.26	0.26	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR3	4/7/2019	Mid-Flood	Fine	Moderate	7:44	8	S	1	1	3	0.25	0.25	0.25	0.022	0.022	0.022	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR3	4/7/2019	Mid-Flood	Fine	Moderate	7:44	8	S	1	2	3	0.25	0.25	0.25	0.022	0.022	0.022	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	4/7/2019	Mid-Flood	Fine	Moderate	7:44	8	S	1	3		0.24	0.24	0.24	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	4/7/2019	Mid-Flood	Fine	Moderate	7:44	8	M	4	1	3	0.24	0.24	0.24	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	4/7/2019	Mid-Flood	Fine	Moderate	7:44	8	M	4	2	4	0.24	0.24	0.24	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	4/7/2019	Mid-Flood	Fine	Moderate	7:44	8	M	4	3		0.24	0.24	0.24	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	4/7/2019	Mid-Flood	Fine	Moderate																															

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	4/7/2019	Mid-Flood	Fine	Moderate	7:35	4	S	1	1	4	0.26	0.28	0.27	0.021	0.022	0.022	NA	NA	NA	NA	NA	2300	1517	1803	NA	NA	NA	<1	<1	1	1		
SR4	4/7/2019	Mid-Flood	Fine	Moderate	7:35	4	S	1	2	4	0.27	0.25	0.26	0.021	0.019	0.020	NA	NA	NA	NA	NA	2700	1700	2142	NA	NA	NA	<1	<1	1	1		
SR4	4/7/2019	Mid-Flood	Fine	Moderate	7:35	4	M	3	3	3	NA	NA	NA	NA	NA	NA	0.24	0.51	0.04	0.79	0.79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR4	4/7/2019	Mid-Flood	Fine	Moderate	7:35	4	B	3	1	4	NA	NA	NA	NA	NA	NA	0.25	0.48	0.04	0.77	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR4	4/7/2019	Mid-Flood	Fine	Moderate	7:35	4	B	3	2	4	NA	NA	NA	NA	NA	NA	0.26	0.52	0.04	0.82	0.81	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR4	4/7/2019	Mid-Flood	Fine	Moderate	7:35	4	B	3	3	3	NA	NA	NA	NA	NA	NA	0.25	0.54	0.04	0.83	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	4/7/2019	Mid-Flood	Fine	Moderate	8:17	11	S	1	1	3	NA	NA	NA	NA	NA	NA	0.26	0.50	0.04	0.80	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	4/7/2019	Mid-Flood	Fine	Moderate	8:17	11	S	1	2	3	NA	NA	NA	NA	NA	NA	0.26	0.55	0.04	0.85	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	4/7/2019	Mid-Flood	Fine	Moderate	8:17	11	M	5.5	1	3	NA	NA	NA	NA	NA	NA	0.26	0.52	0.04	0.82	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	4/7/2019	Mid-Flood	Fine	Moderate	8:17	11	M	5.5	2	4	NA	NA	NA	NA	NA	NA	0.26	0.50	0.04	0.80	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	4/7/2019	Mid-Flood	Fine	Moderate	8:17	11	B	10	2	3	NA	NA	NA	NA	NA	NA	0.26	0.50	0.04	0.80	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	4/7/2019	Mid-Flood	Fine	Moderate	8:17	11	B	10	3	3	NA	NA	NA	NA	NA	NA	0.26	0.50	0.04	0.80	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR12	4/7/2019	Mid-Flood	Fine	Moderate	7:34	15	S	1	1	2	0.27	0.27	0.27	0.021	0.021	0.021	NA	NA	NA	NA	NA	2500	2345	2402	NA	NA	NA	<1	<1	1	1		
SR12	4/7/2019	Mid-Flood	Fine	Moderate	7:34	15	S	1	2	3	0.27	0.27	0.27	0.021	0.021	0.021	NA	NA	NA	NA	NA	2200	2345	2402	NA	NA	NA	<1	<1	1	1		
SR12	4/7/2019	Mid-Flood	Fine	Moderate	7:34	15	M	7.5	1	3	0.26	0.27	0.27	0.020	0.021	0.021	NA	NA	NA	NA	NA	4100	2934	2402	NA	NA	NA	<1	<1	1	1		
SR12	4/7/2019	Mid-Flood	Fine	Moderate	7:34	15	M	7.5	2	3	0.27	0.27	0.27	0.021	0.021	0.021	NA	NA	NA	NA	NA	2100	2934	2402	NA	NA	NA	<1	<1	1	1		
SR12	4/7/2019	Mid-Flood	Fine	Moderate	7:34	15	B	14	1	3	0.28	0.27	0.27	0.021	0.021	0.021	NA	NA	NA	NA	NA	1400	2015	2155	NA	NA	NA	<1	<1	1	1		
SR12	4/7/2019	Mid-Flood	Fine	Moderate	7:34	15	B	14	2	4	0.26	0.27	0.27	0.020	0.020	0.020	NA	NA	NA	NA	NA	2900	2015	2155	NA	NA	NA	<1	<1	1	1		
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	S	1	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	S	1	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	M	7	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	M	7	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	M	7	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	B	13	1	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	B	13	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	4/7/2019	Mid-Flood	Fine	Moderate	7:13	14	B	13	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																												
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)					
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	S	1	1	8.19	23.80		27.52		67.7		4.68			1.8			0.25			0.020	NA	NA	NA	NA								
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	S	1	2	8.19	23.81	23.81	27.52	27.52	67.5	67.6	4.66	4.67		1.8	1.8		0.26	0.26		0.021	0.021	NA	NA	NA	NA	NA						
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	S	1	3																	NA	NA	NA	NA	NA								
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	M																			NA	NA	NA	NA	NA								
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	M																			NA	NA	NA	NA	NA								
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	M																			NA	NA	NA	NA	NA								
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	B	3	1	8.18	23.99		27.49		66.3		4.58			3.6			0.25			0.020	NA	NA	NA	NA	NA							
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	B	3	2	8.18	24.01	24.00	27.49	27.49	66.2	66.3	4.58	4.58		3.6	3.6		0.25	0.25		0.020	0.020	NA	NA	NA	NA	NA						
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	B	3	3																	NA	NA	NA	NA	NA								
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	S	1	1	8.18	20.92		28.06		81.9		5.80			2.4			NA			NA	NA	0.25	0.52	0.04	0.81							
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	S	1	2	8.18	20.91	20.91	28.06	28.06	81.7	81.8	5.76	5.78		2.4	2.4		NA	NA		NA	NA	0.26	0.53	0.04	0.83			0.82				
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	S	1	3																	NA	NA	0.23	0.53	0.04	0.80							
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	M	5.5	1	8.19	24.71		27.64		78.0		5.44			3.3			NA			NA	NA	0.23	0.55	0.04	0.82							
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	M	5.5	2	8.19	24.70	24.71	27.43	27.54	78.4	78.2	5.40	5.42		3.3	3.3		NA	NA		NA	NA	0.24	0.55	0.04	0.83			0.82				
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	M	5.5	3																	NA	NA	0.25	0.53	0.04	0.82							
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	B	10	1	8.19	27.59		27.36		75.4		5.20			4.4			NA			NA	NA	0.26	0.55	0.04	0.85							
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	B	10	2	8.20	27.58	27.59	27.26	27.31	74.8	75.1	5.19	5.20		4.4	4.4		NA	NA		NA	NA	0.28	0.53	0.04	0.85			0.87				
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	B	10	3																	NA	NA	0.31	0.55	0.04	0.90							
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	S	1	1	8.18	25.21		27.41		66.0		4.53			2.9			0.26			0.021	NA	NA	NA	NA	NA							
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	S	1	2	8.19	25.19	25.20	27.41	27.41	66.0	66.0	4.52	4.53		2.9	2.9		0.26	0.26		0.021	0.021	NA	NA	NA	NA	NA						
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	S	1	3																	NA	NA	NA	NA	NA								
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	M	7.5	1	8.18	26.69		27.25		59.6		4.10			2.5			0.26			0.020	NA	NA	NA	NA	NA							
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	M	7.5	2	8.18	26.71	26.70	27.26	27.25	59.2	59.4	4.06	4.08		2.5	2.5		0.26	0.26		0.020	0.020	0.020	0.020	0.020	0.020			NA				
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	M	7.5	3																	NA	NA	NA	NA	NA								
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	B	14	1	8.15	25.92		27.21		57.5		3.94			2.8			0.28			0.021	NA	NA	NA	NA	NA							
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	B	14	2	8.16	25.95	25.94	27.21	27.21	57.4	57.5	3.92	3.93		2.8	2.8		0.28	0.28		0.021	0.021	NA	NA	NA	NA	NA						
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	B	14	3																	NA	NA	NA	NA	NA								
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	S	1	1	8.19	25.00		27.40		65.4		4.55						NA			NA	NA	NA	NA	NA	NA							
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	S	1	2	8.18	25.04	25.02	27.39	27.39	65.2	65.3	4.56	4.56					NA	NA		NA	NA	NA	NA	NA	NA							
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	S	1	3																	NA	NA	NA	NA	NA								
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	M	7	1	8.19	25.31		27.32		64.0		4.22						NA			NA	NA	NA	NA	NA	NA							
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	M	7	2	8.18	25.32	25.32	27.33	27.32	63.9	64.0	4.23	4.23					NA	NA		NA	NA	NA	NA	NA	NA							
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	M	7	3																	NA	NA	NA	NA	NA								
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	B	13	1	8.18	25.61		27.28		62.0		3.95						NA			NA	NA	NA	NA	NA								
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	B	13	2	8.16	25.62	25.62	27.28	27.28	62.1	62.1	3.94	3.95					NA	NA		NA	NA	NA	NA	NA								
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	B	13	3																	NA	NA	NA	NA	NA								

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																											
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)						
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.				Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	
C1A	4/7/2019	Mid-Ebb	Fine	Moderate	10:02	28	S	1	1	3	0.27			0.024	0.024		0.27	0.52	0.04	0.83				940	915		728	NA	NA	NA	<1						
C1A	4/7/2019	Mid-Ebb	Fine	Moderate	10:02	28	S	1	2	3	0.27	0.27		0.024	0.024		0.27	0.49	0.04	0.80	0.81			890		NA	NA	NA	<1	1							
C1A	4/7/2019	Mid-Ebb	Fine	Moderate	10:02	28	S	1	3																												
C1A	4/7/2019	Mid-Ebb	Fine	Moderate	10:02	28	M	14	1	3	0.26			0.022	0.022		0.26	0.56	0.04	0.86	0.82			950	647	NA	NA	NA	<1								
C1A	4/7/2019	Mid-Ebb	Fine	Moderate	10:02	28	M	14	2	4	0.26	0.26		0.022	0.022	0.023	0.26	0.49	0.04	0.79	0.82			440		NA	NA	NA	<1	1							
C1A	4/7/2019	Mid-Ebb	Fine	Moderate	10:02	28	M	14	3																												
C1A	4/7/2019	Mid-Ebb	Fine	Moderate	10:02	28	B	27	1	4	0.27			0.022	0.022		0.27	0.55	0.04	0.86	0.83			610		NA	NA	NA	<1								
C1A	4/7/2019	Mid-Ebb	Fine	Moderate	10:02	28	B	27	2	4	0.28	0.28		0.023	0.023		0.28	0.50	0.04	0.82	0.83			700	653	NA	NA	NA	<1	1							
C1A	4/7/2019	Mid-Ebb	Fine	Moderate	10:02	28	B	27	3																												
C2A	4/7/2019	Mid-Ebb	Fine	Moderate	11:40	13	S	1	1	4	0.21			0.021	0.020		0.21	0.37	0.03	0.61	0.59			6	5	NA	NA	NA	<1								
C2A	4/7/2019	Mid-Ebb	Fine	Moderate	11:40	13	S	1	2	4	0.20	0.21		0.021	0.020		0.20	0.34	0.03	0.57	0.59			5		NA	NA	NA	<1	1							
C2A	4/7/2019	Mid-Ebb	Fine	Moderate	11:40	13	S	1	3																												
C2A	4/7/2019	Mid-Ebb	Fine	Moderate	11:40	13	M	6.5	1	4	0.22			0.018	0.018		0.22	0.37	0.03	0.62	0.60			8		NA	NA	NA	<1								
C2A	4/7/2019	Mid-Ebb	Fine	Moderate	11:40	13	M	6.5	2	4	0.20	0.21	0.21	0.017	0.018	0.018	0.20	0.34	0.03	0.57	0.60			10	9	NA	NA	NA	<1	1		1					
C2A	4/7/2019	Mid-Ebb	Fine	Moderate	11:40	13	M	6.5	3																												
C2A	4/7/2019	Mid-Ebb	Fine	Moderate	11:40	13	B	12	1	4	0.20			0.016	0.016		0.20	0.34	0.03	0.57	0.60			12		NA	NA	NA	<1								
C2A	4/7/2019	Mid-Ebb	Fine	Moderate	11:40	13	B	12	2	3	0.22	0.21		0.017	0.016		0.22	0.35	0.03	0.60	0.60			7	9	NA	NA	NA	<1	1							
C2A	4/7/2019	Mid-Ebb	Fine	Moderate	11:40	13	B	12	3																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	S	1	1	3	NA	NA		NA	NA		NA	NA	NA	NA	NA																
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	S	1	2	3	NA	NA		NA	NA		NA	NA	NA	NA	NA																
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	S	1	3																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	M	6	1	3	NA	NA		NA	NA		NA	NA	NA	NA	NA																
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	M	6	2	3	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA																
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	M	6	3																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	1	4	NA	NA		NA	NA		NA	NA	NA	NA	NA																
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	2	5	NA	NA		NA	NA		NA	NA	NA	NA	NA																
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	3																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	S	1	1	3	NA	NA		NA	NA		NA	NA	NA	NA	NA																
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	S	1	2	3	NA	NA		NA	NA		NA	NA	NA	NA	NA																
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	S	1	3																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	M	6	1	3	NA	NA		NA	NA		NA	NA	NA	NA	NA																
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	M	6	2	3	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA																
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	M	6	3																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	1	4	NA	NA		NA	NA		NA	NA	NA	NA	NA																
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	2	5	NA	NA		NA	NA		NA	NA	NA	NA	NA																
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	3																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	4																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	5																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	6																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	7																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	8																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	9																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	10																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	11																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	12																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	13																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	14																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	15																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	16																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	17																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	18																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	19																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	20																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	21																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	22																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	23																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	24																												
G2	4/7/2019	Mid-Ebb	Fine	Moderate	10:40	12	B	11	25																												

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	S	1	1	3	0.26	0.26	0.26	0.021	0.021	0.021	NA	NA	NA	NA	NA	2900	2693	2273	NA	NA	NA	<1	<1	1	1		
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	S	1	2	4	0.26	0.26	0.26	0.021	0.021	0.021	NA	NA	NA	NA	NA	2500	2693	2273	NA	NA	NA	<1	<1	1	1		
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	S	1	3	4	0.26	0.26	0.26	0.021	0.021	0.021	NA	NA	NA	NA	NA	2500	2693	2273	NA	NA	NA	<1	<1	1	1		
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	M	1	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	M	2	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	M	3	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	B	3	1	4	0.25	0.26	0.26	0.020	0.021	0.021	NA	NA	NA	NA	NA	2300	1918	2273	NA	NA	NA	<1	<1	1	1		
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	B	3	2	4	0.27	0.26	0.26	0.022	0.021	0.021	NA	NA	NA	NA	NA	1600	1918	2273	NA	NA	NA	<1	<1	1	1		
SR4	4/7/2019	Mid-Ebb	Fine	Moderate	11:01	4	B	3	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	S	1	1	3	NA	NA	NA	NA	NA	NA	0.25	0.53	0.04	0.82	0.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	S	1	2	4	NA	NA	NA	NA	NA	NA	0.26	0.49	0.04	0.79	0.81	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	S	1	3	4	NA	NA	NA	NA	NA	NA	0.24	0.52	0.04	0.80	0.81	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	M	5.5	1	4	NA	NA	NA	NA	NA	NA	0.26	0.54	0.04	0.84	0.81	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	M	5.5	2	4	NA	NA	NA	NA	NA	NA	0.27	0.49	0.04	0.80	0.81	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	M	5.5	3	3	NA	NA	NA	NA	NA	NA	0.25	0.51	0.04	0.80	0.81	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	B	10	1	4	NA	NA	NA	NA	NA	NA	0.25	0.53	0.04	0.82	0.81	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	B	10	2	4	NA	NA	NA	NA	NA	NA	0.26	0.49	0.04	0.79	0.81	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	4/7/2019	Mid-Ebb	Fine	Moderate	10:17	11	B	10	3	3	NA	NA	NA	NA	NA	NA	0.25	0.52	0.04	0.81	0.81	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	S	1	1	3	0.25	0.26	0.26	0.020	0.020	0.020	NA	NA	NA	NA	NA	1900	2179	2304	NA	NA	NA	<1	<1	1	1		
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	S	1	2	3	0.26	0.26	0.26	0.021	0.020	0.020	NA	NA	NA	NA	NA	2500	2179	2304	NA	NA	NA	<1	<1	1	1		
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	S	1	3	3	0.26	0.26	0.26	0.020	0.020	0.020	NA	NA	NA	NA	NA	2900	2900	2304	NA	NA	NA	<1	<1	1	1		
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	M	7.5	1	3	0.26	0.26	0.26	0.020	0.020	0.020	NA	NA	NA	NA	NA	2900	2900	2304	NA	NA	NA	<1	<1	1	1		
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	M	7.5	2	4	0.25	0.26	0.26	0.019	0.020	0.020	NA	NA	NA	NA	NA	2900	2900	2304	NA	NA	NA	<1	<1	1	1		
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	M	7.5	3	3	0.26	0.26	0.26	0.020	0.020	0.020	NA	NA	NA	NA	NA	2900	2900	2304	NA	NA	NA	<1	<1	1	1		
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	B	14	1	3	0.26	0.27	0.27	0.019	0.019	0.019	NA	NA	NA	NA	NA	2200	1934	2304	NA	NA	NA	<1	<1	1	1		
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	B	14	2	3	0.27	0.27	0.27	0.020	0.019	0.019	NA	NA	NA	NA	NA	1700	1934	2304	NA	NA	NA	<1	<1	1	1		
SR12	4/7/2019	Mid-Ebb	Fine	Moderate	11:14	15	B	14	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	S	1	1	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	S	1	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	S	1	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	M	7	1	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	M	7	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	M	7	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	B	13	1	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	B	13	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	4/7/2019	Mid-Ebb	Fine	Moderate	11:25	14	B	13	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																														
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)								
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.					
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	S	1	1	8.12	8.12	23.87	23.85	23.86	27.76	27.75	27.76	80.0	79.8	79.9	5.55	5.54	5.55	1.3	1.5	1.4	0.13	0.13	0.13	0.009	0.009	0.009	0.16	0.58	0.13	0.87	0.88	0.94	0.94	
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	S	1	2	8.11	8.12	23.85	23.86	27.75	27.76	79.8	79.9	5.54	5.55	4.77	2.2	2.4	2.3	2.2	2.4	2.3	0.19	0.18	0.15	0.014	0.013	0.013	0.19	0.59	0.16	0.94	0.94	0.94	0.94	
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	M	14	1	8.13	8.13	24.23	24.25	27.63	27.63	72.1	71.8	72.0	3.00	4.98	3.99	4.77	4.98	4.77	2.2	2.4	2.3	0.19	0.18	0.15	0.014	0.013	0.013	0.19	0.59	0.16	0.94	0.94	0.94	0.94
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	M	14	2	8.12	8.13	24.26	24.25	27.63	27.63	71.8	72.0	4.98	3.99	4.77	2.2	2.4	2.3	2.2	2.4	2.3	0.19	0.18	0.15	0.014	0.013	0.013	0.19	0.59	0.16	0.94	0.94	0.94	0.94	
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	M	14	3	8.12	8.14	24.26	24.70	27.63	27.51	71.8	67.5	67.4	4.98	4.68	4.77	2.2	2.4	2.3	2.2	2.4	2.3	0.19	0.15	0.15	0.010	0.011	0.010	0.20	0.61	0.17	0.98	1.01	1.01	1.01
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	B	27	1	8.13	8.14	24.69	24.70	27.51	27.51	67.3	67.4	4.67	4.68	4.68	3.8	3.9	3.9	3.8	3.9	3.9	0.14	0.15	0.15	0.010	0.011	0.010	0.22	0.62	0.18	1.02	1.01	1.01	1.01	
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	B	27	2	8.14	8.14	24.71	24.70	27.50	27.51	67.5	67.4	4.69	4.68	4.68	3.9	3.9	3.9	3.9	3.9	3.9	0.15	0.15	0.15	0.011	0.011	0.010	0.22	0.61	0.18	1.01	1.01	1.01	1.01	
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	B	27	3	8.14	8.14	24.71	24.70	27.50	27.51	67.5	67.4	4.69	4.68	4.68	3.9	3.9	3.9	3.9	3.9	3.9	0.15	0.15	0.15	0.011	0.011	0.010	0.22	0.62	0.18	1.02	1.01	1.01	1.01	
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	S	1	1	7.91	7.91	23.69	23.71	27.84	27.85	77.4	77.6	77.5	5.32	5.33	5.33	5.07	1.7	1.6	1.7	0.41	0.41	0.41	0.019	0.019	0.019	0.41	0.40	0.07	0.88	0.89	0.89	0.89		
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	S	1	2	7.91	7.91	23.73	23.71	27.85	27.85	77.6	77.5	5.33	5.33	5.33	5.07	1.7	1.6	1.7	0.41	0.41	0.41	0.019	0.019	0.019	0.41	0.40	0.08	0.89	0.89	0.89	0.89			
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	S	1	3	7.91	7.91	23.69	23.71	27.84	27.85	77.4	77.6	77.5	5.32	5.33	5.33	5.07	1.7	1.6	1.7	0.41	0.41	0.41	0.019	0.019	0.019	0.41	0.40	0.07	0.88	0.89	0.89	0.89		
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	M	6.5	1	7.93	7.94	24.04	24.05	27.76	27.76	69.8	70.0	69.9	4.80	4.81	4.81	5.07	2.3	2.1	2.2	0.29	0.30	0.30	0.014	0.014	0.014	0.42	0.41	0.09	0.88	0.85	0.85	0.85		
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	M	6.5	2	7.94	7.94	24.06	24.05	27.75	27.76	70.0	69.9	4.81	4.81	4.81	5.07	2.3	2.1	2.2	0.29	0.30	0.30	0.014	0.014	0.014	0.42	0.41	0.09	0.88	0.85	0.85	0.85			
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	M	6.5	3	7.94	7.94	24.06	24.05	27.75	27.76	70.0	69.9	4.81	4.81	4.81	5.07	2.3	2.1	2.2	0.29	0.30	0.30	0.014	0.014	0.014	0.42	0.41	0.09	0.88	0.85	0.85	0.85			
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	B	12	1	7.92	7.93	24.32	24.30	27.70	27.70	64.2	64.5	64.4	4.42	4.44	4.43	5.07	2.7	3.0	2.9	0.19	0.25	0.22	0.009	0.012	0.010	0.43	0.43	0.12	0.86	0.85	0.85	0.85		
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	B	12	2	7.93	7.93	24.28	24.30	27.69	27.70	64.5	64.4	4.44	4.43	4.43	5.07	2.7	3.0	2.9	0.19	0.25	0.22	0.009	0.012	0.010	0.43	0.43	0.11	0.85	0.85	0.85	0.85			
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	B	12	3	7.93	7.93	24.28	24.30	27.69	27.70	64.5	64.4	4.44	4.43	4.43	5.07	2.7	3.0	2.9	0.19	0.25	0.22	0.009	0.012	0.010	0.43	0.43	0.11	0.85	0.85	0.85	0.85			
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	S	1	1	8.11	8.12	22.47	22.49	27.93	27.92	79.6	79.3	79.5	5.56	5.54	5.55	5.34	2.0	2.2	2.1	NA	NA	NA	NA	NA	NA	0.17	0.56	0.14	0.87	0.89	0.89	0.89		
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	S	1	2	8.12	8.12	22.50	22.49	27.91	27.92	79.3	79.5	5.54	5.55	5.55	5.34	2.0	2.2	2.1	NA	NA	NA	NA	NA	NA	0.17	0.57	0.15	0.90	0.89	0.89	0.89			
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	S	1	3	8.11	8.11	22.47	22.49	27.93	27.92	79.6	79.3	79.5	5.56	5.54	5.55	5.34	2.0	2.2	2.1	NA	NA	NA	NA	NA	NA	0.17	0.57	0.15	0.90	0.89	0.89	0.89		
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	M	6	1	8.10	8.11	22.81	22.80	27.80	27.81	73.2	73.5	73.4	5.11	5.14	5.13	5.34	2.7	2.9	2.8	NA	NA	NA	NA	NA	NA	0.19	0.58	0.16	0.93	0.94	0.94	0.94		
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	M	6	2	8.11	8.11	22.79	22.80	27.81	27.81	73.5	73.4	5.14	5.13	5.13	5.34	2.7	2.9	2.8	NA	NA	NA	NA	NA	NA	0.19	0.59	0.16	0.94	0.94	0.94	0.94			
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	M	6	3	8.11	8.11	22.79	22.80	27.81	27.81	73.5	73.4	5.14	5.13	5.13	5.34	2.7	2.9	2.8	NA	NA	NA	NA	NA	NA	0.19	0.59	0.16	0.94	0.94	0.94	0.94			
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	B	11	1	8.12	8.13	23.02	23.01	27.72	27.73	70.0	69.8	69.9	4.89	4.87	4.88	5.34	3.3	3.6	3.5	NA	NA	NA	NA	NA	NA	0.21	0.60	0.18	0.99	1.00	1.00	1.00		
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	B	11	2	8.13	8.13	23.00	23.01	27.73	27.73	69.8	69.9	4.87	4.88	4.88	5.34	3.3	3.6	3.5	NA	NA	NA	NA	NA	NA	0.22	0.60	0.19	1.01	1.00	1.00	1.00			
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	B	11	3	8.13	8.13	23.00	23.01	27.73	27.73	69.8	69.9	4.87	4.88	4.88	5.34	3.3	3.6	3.5	NA	NA	NA	NA	NA	NA	0.21	0.61	0.18	1.00	1.00	1.00	1.00			
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	S	1	1	8.09	8.09	23.04	23.06	27.63	27.63	89.8	90.1	90.0	6.27	6.29	6.28	6.07	0.7	0.9	0.8	0.12	0.13	0.13	0.008	0.009	0.008	NA	NA	NA	NA	NA	NA	NA		
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	S	1	2	8.08	8.09	23.07	23.06	27.63	27.63	89.1	90.0	6.29	6.28	6.28	6.07	0.7	0.9	0.8	0.12	0.13	0.13	0.008	0.009	0.008	NA	NA	NA	NA	NA	NA	NA			
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	S	1	3	8.08	8.09	23.07	23.06	27.63	27.63	89.1	90.0	6.29	6.28	6.28	6.07	0.7	0.9	0.8	0.12	0.13	0.13	0.008	0.009	0.008	NA	NA	NA	NA	NA	NA	NA			
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	M	4.5	1	8.10	8.11	23.43	23.42	27.57	27.57	83.7	84.0	83.9	5.83	5.87	5.85	6.07	1.6	1.4	1.5	0.15	0.15	0.15	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA	NA		
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	M	4.5	2	8.12	8.11	23.40	23.42	27.56	27.57	84.0	83.9	5.87	5.85	5.85	6.07	1.6	1.4	1.5	0.15	0.15	0.15	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA	NA			
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	M	4.5	3	8.12	8.11	23.40	23.42	27.56	27.57	84.0	83.9	5.87	5.85	5.85	6.07	1.6	1.4	1.5	0.15	0.15	0.15	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA	NA			
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	B	8	1	8.13	8.13	23.69	23.70	27.50	27.50	80.6	80.3	80.5	5.63	5.62	5.62	6.07	2.2	2.0	2.1	0.17	0.17	0.17	0.012	0.012	0.012	NA	NA	NA	NA	NA	NA	NA		
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	B	8	2	8.12	8.13	23.71	23.70	27.49	27.50	80.3	80.5	5.61	5.62	5.62	6.07	2.2	2.0	2.1	0.17	0.17	0.17	0.012	0.012	0.012	NA	NA	NA	NA	NA	NA	NA			
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	B	8	3	8.12	8.13	23.71	23.70	27.49	27.50	80.3	80.5	5.61	5.62	5.62	6.07	2.2	2.0	2.1	0.17	0.17	0.17	0.012	0.012	0.012	NA	NA	NA	NA	NA	NA	NA			
SR3	6/7/2019	Mid-Flood	Fine	Moderate	9:48	8	S	1	1	8.																														

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																									
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)		
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value
SR4	6/7/2019	Mid-Flood	Fine	Moderate	9:35	4	S	1	1	8.10	24.12	24.14	27.74	27.75	83.2	83.1	5.62	5.61	0.7	0.8	0.8	0.39	0.32	0.026	0.017	0.022	NA	NA	NA	NA	NA	NA			
SR4	6/7/2019	Mid-Flood	Fine	Moderate	9:35	4	S	1	2	8.09	24.16	24.14	27.75	27.75	83.0	83.1	5.60	5.61	0.8	0.8	0.8	0.25	0.32	0.017	0.022	0.022	NA	NA	NA	NA	NA	NA			
SR4	6/7/2019	Mid-Flood	Fine	Moderate	9:35	4	S	1	3																										
SR4	6/7/2019	Mid-Flood	Fine	Moderate	9:35	4	M		1																										
SR4	6/7/2019	Mid-Flood	Fine	Moderate	9:35	4	M		2																										
SR4	6/7/2019	Mid-Flood	Fine	Moderate	9:35	4	M		3																										
SR4	6/7/2019	Mid-Flood	Fine	Moderate	9:35	4	B	3	1	8.10	24.37	24.35	27.70	27.71	80.7	80.6	5.45	5.44	1.0	1.1	1.1	0.20	0.21	0.014	0.014	0.014	NA	NA	NA	NA	NA	NA			
SR4	6/7/2019	Mid-Flood	Fine	Moderate	9:35	4	B	3	2	8.10	24.33	24.35	27.71	27.71	80.5	80.6	5.43	5.44	1.1	1.1	1.1	0.22	0.21	0.015	0.014	0.014	NA	NA	NA	NA	NA	NA			
SR4	6/7/2019	Mid-Flood	Fine	Moderate	9:35	4	B	3	3																										
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	S	1	1	8.09	22.76	22.78	28.01	28.01	90.3	90.3	6.31	6.31	0.7	0.9	0.8	NA	NA	NA	NA	NA	0.15	0.60	0.12	0.87	0.88				
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	S	1	2	8.09	22.79	22.78	28.00	28.01	90.2	90.3	6.30	6.31	0.9	0.9	0.8	NA	NA	NA	NA	NA	0.16	0.60	0.13	0.89	0.88				
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	S	1	3																		0.15	0.61	0.12	0.88	0.88				
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	M	5.5	1	8.12	22.83	22.82	27.99	27.99	84.4	84.5	5.90	5.91	1.6	1.5	1.6	NA	NA	NA	NA	NA	0.18	0.61	0.14	0.93	0.96				
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	M	5.5	2	8.11	22.80	22.82	27.93	27.96	84.6	84.5	5.91	5.91	1.5	1.5	1.6	NA	NA	NA	NA	NA	0.18	0.61	0.14	0.93	0.96				
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	M	5.5	3																	0.18	0.72	0.13	1.03	0.96					
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	B	10	1	8.12	23.04	23.05	27.86	27.86	80.8	80.9	5.65	5.66	2.4	2.3	2.4	NA	NA	NA	NA	NA	0.21	0.66	0.16	1.03	1.02				
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	B	10	2	8.13	23.06	23.05	27.86	27.86	81.0	80.9	5.66	5.66	2.3	2.3	2.4	NA	NA	NA	NA	NA	0.20	0.60	0.15	0.95	0.96				
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	B	10	3																	0.20	0.71	0.16	1.07	1.02					
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	S	1	1	8.08	23.20	23.22	27.88	27.88	76.6	76.5	5.17	5.16	2.0	2.2	2.1	0.30	0.31	0.020	0.021	0.020	NA	NA	NA	NA	NA				
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	S	1	2	8.08	23.24	23.22	27.87	27.88	76.3	76.5	5.15	5.16	2.2	2.2	2.1	0.31	0.31	0.020	0.021	0.020	NA	NA	NA	NA	NA				
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	S	1	3																										
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	M	7.5	1	8.09	23.76	23.75	27.82	27.82	70.4	70.3	4.75	4.75	2.7	2.6	2.7	0.32	0.32	0.022	0.022	0.022	NA	NA	NA	NA	NA				
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	M	7.5	2	8.10	23.73	23.75	27.82	27.82	70.2	70.3	4.74	4.75	2.6	2.6	2.7	0.32	0.32	0.022	0.022	0.022	NA	NA	NA	NA	NA				
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	M	7.5	3																										
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	B	14	1	8.10	24.02	24.01	27.73	27.74	65.4	65.6	4.41	4.42	3.4	3.8	3.6	0.28	0.29	0.019	0.020	0.020	NA	NA	NA	NA	NA				
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	B	14	2	8.11	24.00	24.01	27.74	27.74	65.7	65.6	4.43	4.42	3.8	3.8	3.6	0.29	0.29	0.020	0.020	0.020	NA	NA	NA	NA	NA				
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	B	14	3																										
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	S	1	1	8.05	23.23	23.25	27.89	27.89	85.5	85.4	5.77	5.76	1.6	1.7	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	S	1	2	8.04	23.26	23.25	27.88	27.89	85.2	85.4	5.75	5.76	1.7	1.7	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	S	1	3																										
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	M	7	1	8.05	23.63	23.65	27.80	27.81	80.1	80.0	5.40	5.40	1.9	2.1	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	M	7	2	8.06	23.66	23.65	27.81	27.81	79.9	80.0	5.39	5.40	2.1	2.1	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	M	7	3																										
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	B	13	1	8.06	23.92	23.91	27.71	27.72	78.9	79.0	5.32	5.33	2.7	2.9	2.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	B	13	2	8.07	23.90	23.91	27.72	27.72	79.0	79.0	5.33	5.33	2.9	2.9	2.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	S	1	1	4	0.13			0.009			0.13	0.57	0.11	0.81				3800			NA			<1			
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	S	1	2	3	0.14	0.14		0.010	0.010		0.14	0.55	0.11	0.80	0.81			3700	3750		NA	NA		<1	1		
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	S	1	3								0.14	0.57	0.11	0.82													
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	M	14	1	3	0.15			0.011			0.15	0.59	0.12	0.86				3800			NA			<1			
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	M	14	2	3	0.17	0.16	0.14	0.012			0.17	0.64	0.12	0.93	0.88	0.86		3700	3750	3716	NA	NA		<1	1	1	
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	M	14	3								0.15	0.58	0.12	0.85													
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	B	27	1	3	0.14			0.010			0.14	0.63	0.12	0.89				3600			NA			<1			
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	B	27	2	3	0.13	0.14		0.009	0.010		0.13	0.65	0.11	0.89	0.90			3700	3650		NA	NA		<1	1		
C1A	6/7/2019	Mid-Flood	Fine	Moderate	11:04	28	B	27	3								0.20	0.60	0.11	0.91													
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	S	1	1	3	0.38			0.017			0.38	0.38	0.06	0.82				200			NA			2			
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	S	1	2	3	0.38	0.38		0.017	0.017		0.38	0.42	0.06	0.86	0.84			260	228		NA	NA		<1	2		
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	S	1	3								0.39	0.39	0.06	0.84													
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	M	6.5	1	3	0.29			0.014			0.29	0.38	0.06	0.73				270			NA			3			
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	M	6.5	2	3	0.28	0.29	0.30	0.013	0.014	0.014	0.28	0.38	0.06	0.72	0.76	0.78		320	294	286	NA	NA	NA	1	2	2	
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	M	6.5	3								0.40	0.38	0.06	0.84													
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	B	12	1	4	0.19			0.009			0.19	0.43	0.06	0.68				320			NA			<1			
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	B	12	2	3	0.30	0.25		0.014	0.011		0.30	0.39	0.06	0.75	0.72			380	349		NA	NA		1	1		
C2A	6/7/2019	Mid-Flood	Fine	Moderate	8:30	13	B	12	3								0.28	0.40	0.06	0.74													
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	S	1	1	3	NA			NA			0.15	0.54	0.12	0.81				NA			NA			NA			
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	S	1	2	3	NA	NA		NA	NA		0.15	0.58	0.11	0.84	0.85			NA	NA		NA	NA		NA	NA		
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	S	1	3								0.15	0.64	0.11	0.90													
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	M	6	1	3	NA			NA			0.15	0.58	0.11	0.84				NA			NA			NA	NA		
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	M	6	2	3	NA	NA	NA	NA	NA	NA	0.15	0.59	0.11	0.85	0.85	0.87		NA	NA	NA	NA	NA	NA	NA	NA	NA	
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	M	6	3								0.17	0.59	0.11	0.87													
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	B	11	1	3	NA			NA			0.15	0.67	0.11	0.93				NA			NA			NA	NA		
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	B	11	2	3	NA	NA		NA	NA		0.16	0.60	0.11	0.87	0.91			NA	NA		NA	NA		NA	NA		
G2	6/7/2019	Mid-Flood	Fine	Moderate	10:11	12	B	11	3								0.16	0.66	0.11	0.93													
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	S	1	1	2	0.12			0.008			NA	NA	NA	NA	NA				NA			NA			NA	NA	
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	S	1	2	2	0.12	0.12		0.008	0.008		NA	NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA	
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	S	1	3								NA	NA	NA	NA	NA	NA											
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	M	4.5	1	3	0.16			0.011			NA	NA	NA	NA	NA	NA				NA			NA		NA	NA	
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	M	4.5	2	3	0.13	0.15	0.13	0.011	0.010	0.009	NA	NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	M	4.5	3								NA	NA	NA	NA	NA	NA											
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	B	8	1	3	0.12			0.009			NA	NA	NA	NA	NA	NA				NA			NA		NA	NA	
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	B	8	2	3	0.13	0.13		0.009	0.009		NA	NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA
SR2	6/7/2019	Mid-Flood	Fine	Moderate	10:27	9	B	8	3								NA	NA	NA	NA	NA	NA											
SR3	6/7/2019	Mid-Flood	Fine	Moderate	9:48	8	S	1	1	3	0.19			0.013			NA	NA	NA	NA	NA	NA				NA			NA			NA	NA
SR3	6/7/2019	Mid-Flood	Fine	Moderate	9:48	8	S	1	2	3	0.14	0.17		0.010	0.011		NA	NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA
SR3	6/7/2019	Mid-Flood	Fine	Moderate	9:48	8	S	1	3								NA	NA	NA	NA	NA	NA											
SR3	6/7/2019	Mid-Flood	Fine	Moderate	9:48	8	M	4	1	3	0.14			0.010			NA	NA	NA	NA	NA	NA				NA			NA		NA	NA	
SR3	6/7/2019	Mid-Flood	Fine	Moderate	9:48	8	M	4	2	3	0.17	0.16	0.16	0.012	0.011	0.011	NA	NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA
SR3	6/7/2019	Mid-Flood	Fine	Moderate	9:48	8	M	4	3								NA	NA	NA	NA	NA	NA											
SR3	6/7/2019	Mid-Flood	Fine	Moderate	9:48	8	B	7	1	3	0.17			0.012			NA	NA	NA	NA	NA	NA				NA			NA		NA	NA	
SR3	6/7/2019	Mid-Flood	Fine	Moderate	9:48	8	B	7	2	3	0.14	0.16		0.010	0.011		NA	NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA
SR3	6/7/2019	Mid-Flood	Fine	Moderate	9:48	8	B	7	3								NA	NA	NA	NA	NA	NA											

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	6/7/2019	Mid-Flood	Fine	Moderate	9:35	4	S	1	1	2	0.31	0.29	0.30	0.021	0.020	0.020	NA	NA	NA	NA	NA	NA	3500	3600	3550	NA	NA	NA	1	<1	1	1	
SR4	6/7/2019	Mid-Flood	Fine	Moderate	9:35	4	S	1	2	2	0.30	0.30	0.30	0.020	0.020	0.020	NA	NA	NA	NA	NA	NA	4400	6200	5223	NA	NA	NA	<1	<1	1	1	
SR4	6/7/2019	Mid-Flood	Fine	Moderate	9:35	4	M	2	2	2	0.30	0.30	0.30	0.020	0.020	0.020	NA	NA	NA	NA	NA	NA	4400	6200	5223	NA	NA	NA	<1	<1	1	1	
SR4	6/7/2019	Mid-Flood	Fine	Moderate	9:35	4	M	3	3	3	0.30	0.30	0.30	0.020	0.020	0.020	NA	NA	NA	NA	NA	NA	4400	6200	5223	NA	NA	NA	<1	<1	1	1	
SR4	6/7/2019	Mid-Flood	Fine	Moderate	9:35	4	B	3	1	2	0.30	0.30	0.30	0.020	0.020	0.020	NA	NA	NA	NA	NA	NA	4400	6200	5223	NA	NA	NA	<1	<1	1	1	
SR4	6/7/2019	Mid-Flood	Fine	Moderate	9:35	4	B	3	2	2	0.30	0.30	0.30	0.020	0.020	0.020	NA	NA	NA	NA	NA	NA	4400	6200	5223	NA	NA	NA	<1	<1	1	1	
SR4	6/7/2019	Mid-Flood	Fine	Moderate	9:35	4	B	3	3	3	0.30	0.30	0.30	0.020	0.020	0.020	NA	NA	NA	NA	NA	NA	4400	6200	5223	NA	NA	NA	<1	<1	1	1	
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	S	1	1	2	NA	NA	NA	NA	NA	NA	0.13	0.69	0.11	0.93	0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	S	1	2	3	NA	NA	NA	NA	NA	NA	0.14	0.60	0.11	0.85	0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	S	1	3	3	NA	NA	NA	NA	NA	NA	0.14	0.60	0.11	0.85	0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	M	5.5	1	3	NA	NA	NA	NA	NA	NA	0.14	0.60	0.11	0.85	0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	M	5.5	2	2	NA	NA	NA	NA	NA	NA	0.13	0.67	0.12	0.92	0.88	0.89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	M	5.5	3	3	NA	NA	NA	NA	NA	NA	0.14	0.62	0.11	0.87	0.88	0.89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	B	10	1	3	NA	NA	NA	NA	NA	NA	0.14	0.70	0.11	0.95	0.90	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	B	10	2	3	NA	NA	NA	NA	NA	NA	0.13	0.66	0.11	0.90	0.90	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR5	6/7/2019	Mid-Flood	Fine	Moderate	10:48	11	B	10	3	3	NA	NA	NA	NA	NA	NA	0.13	0.61	0.12	0.86	0.90	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	S	1	1	2	0.27	0.29	0.28	0.018	0.019	0.019	NA	NA	NA	NA	NA	NA	3700	3700	3700	NA	NA	NA	<1	<1	1	1	
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	S	1	2	3	0.27	0.29	0.28	0.018	0.019	0.019	NA	NA	NA	NA	NA	NA	3700	3700	3700	NA	NA	NA	<1	<1	1	1	
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	S	1	3	3	0.27	0.29	0.28	0.018	0.019	0.019	NA	NA	NA	NA	NA	NA	3700	3500	3715	NA	NA	NA	<1	<1	1	1	
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	M	7.5	1	3	0.31	0.29	0.30	0.021	0.020	0.020	NA	NA	NA	NA	NA	NA	3700	3500	3715	NA	NA	NA	<1	<1	1	1	
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	M	7.5	2	3	0.27	0.29	0.30	0.018	0.019	0.019	NA	NA	NA	NA	NA	NA	3700	3500	3715	NA	NA	NA	<1	<1	1	1	
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	M	7.5	3	3	0.27	0.29	0.30	0.018	0.019	0.019	NA	NA	NA	NA	NA	NA	3700	3500	3715	NA	NA	NA	<1	<1	1	1	
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	B	14	1	3	0.28	0.26	0.27	0.019	0.018	0.019	NA	NA	NA	NA	NA	NA	3800	3900	3850	NA	NA	NA	<1	1	1	1	
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	B	14	2	3	0.28	0.26	0.27	0.019	0.018	0.019	NA	NA	NA	NA	NA	NA	3800	3900	3850	NA	NA	NA	<1	1	1	1	
SR12	6/7/2019	Mid-Flood	Fine	Moderate	9:16	15	B	14	3	3	0.28	0.26	0.27	0.019	0.018	0.019	NA	NA	NA	NA	NA	NA	3800	3900	3850	NA	NA	NA	<1	1	1	1	
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	S	1	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	S	1	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	S	1	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	M	7	1	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	M	7	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	M	7	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	B	13	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	B	13	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Flood	Fine	Moderate	8:52	14	B	13	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																								
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)		
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	S	1	1	8.14	24.03	24.07	28.02	28.02	76.6	76.8	5.21	5.22	1.6	1.7	1.7	0.16	0.16	0.16	0.012	0.012	0.16	0.61	0.12	0.89				
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	S	1	2	8.15	24.03	24.05	28.01	28.02	76.9	76.8	5.23	5.22	1.7	1.7	1.7	0.16	0.16	0.16	0.012	0.012	0.16	0.61	0.13	0.90	0.89			
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	S	1	3																		0.16	0.60	0.12	0.88				
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	M	14	1	8.15	24.54	24.56	27.72	27.72	70.1	70.2	4.76	4.77	2.4	2.5	2.5	0.18	0.17	0.18	0.014	0.013	0.18	0.62	0.15	0.95	0.95	0.95		
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	M	14	2	8.16	24.57	27.71	27.71	27.72	70.3	70.2	4.78	4.77	2.5	2.5	2.5	0.17	0.17	0.18	0.013	0.013	0.17	0.63	0.15	0.95				
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	M	14	3																	0.18	0.63	0.14	0.95					
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	B	27	1	8.18	24.89	27.50	27.50	27.50	64.4	64.3	4.38	4.37	3.6	3.5	3.6	0.21	0.20	0.21	0.016	0.016	0.21	0.64	0.16	1.01	1.02	1.02		
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	B	27	2	8.17	24.86	24.88	27.50	27.50	64.2	64.3	4.36	4.37	3.5	3.5	3.6	0.20	0.20	0.21	0.016	0.016	0.20	0.65	0.18	1.03				
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	B	27	3																	0.20	0.65	0.16	1.01					
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	S	1	1	7.99	24.21	24.23	27.93	27.94	82.4	82.6	5.76	5.77	1.5	1.4	1.5	0.33	0.34	0.34	0.018	0.018	0.33	0.42	0.06	0.81	0.82	0.82		
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	S	1	2	7.98	24.24	24.23	27.94	27.94	82.7	82.6	5.78	5.77	1.4	1.4	1.5	0.34	0.34	0.34	0.018	0.018	0.34	0.42	0.06	0.82				
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	S	1	3																	0.34	0.43	0.06	0.83					
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	M	6.5	1	8.01	24.63	24.62	27.83	27.83	72.3	72.4	5.05	5.06	2.0	2.2	2.1	0.35	0.35	0.35	0.020	0.020	0.35	0.43	0.07	0.85	0.86	0.85		
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	M	6.5	2	8.00	24.61	24.62	27.83	27.83	72.5	72.4	5.06	5.06	2.2	2.2	2.1	0.35	0.35	0.35	0.020	0.020	0.35	0.44	0.07	0.86				
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	M	6.5	3																	0.35	0.44	0.07	0.86					
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	B	12	1	8.01	24.92	24.91	27.70	27.71	66.3	66.4	4.63	4.64	3.1	3.3	3.2	0.36	0.37	0.37	0.020	0.021	0.36	0.45	0.06	0.87	0.88	0.88		
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	B	12	2	8.02	24.89	24.91	27.71	27.71	66.5	66.4	4.64	4.64	3.3	3.3	3.2	0.37	0.37	0.37	0.021	0.021	0.37	0.46	0.06	0.89				
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	B	12	3																	0.37	0.46	0.06	0.89					
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	S	1	1	8.10	23.04	23.06	27.46	27.47	77.7	77.6	5.28	5.27	1.4	1.6	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.84	0.84	
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	S	1	2	8.11	23.07	23.06	27.48	27.47	77.4	77.6	5.26	5.27	1.6	1.6	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	S	1	3																	0.16	0.57	0.11	0.84					
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	M	6	1	8.12	23.45	23.48	27.40	27.40	72.3	72.2	4.91	4.90	2.5	2.6	2.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.90	0.90		
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	M	6	2	8.11	23.51	23.48	27.39	27.40	72.1	72.2	4.89	4.90	2.6	2.6	2.6	NA	NA	NA	NA	NA	NA	NA	NA	NA				
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	M	6	3																	0.18	0.59	0.13	0.90					
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	B	11	1	8.11	23.79	23.81	27.31	27.32	68.0	68.1	4.62	4.63	3.0	3.2	3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.96	0.96		
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	B	11	2	8.12	23.82	23.81	27.32	27.32	68.2	68.1	4.63	4.63	3.2	3.2	3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA				
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	B	11	3																	0.21	0.61	0.15	0.97					
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	S	1	1	8.10	22.96	22.97	28.04	28.04	90.4	90.2	6.19	6.18	1.1	1.0	1.1	0.13	0.12	0.13	0.009	0.009	0.13	0.58	0.11	0.85	NA	NA		
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	S	1	2	8.11	22.98	22.97	28.03	28.04	90.0	90.2	6.16	6.18	1.0	1.0	1.1	0.12	0.12	0.13	0.009	0.009	0.12	0.58	0.11	0.85	NA	NA		
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	S	1	3																	0.16	0.57	0.11	0.84					
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	M	4.5	1	8.12	23.17	23.19	27.99	27.99	85.2	85.3	5.83	5.84	1.5	1.7	1.6	0.16	0.15	0.16	0.012	0.011	0.16	0.59	0.12	0.89	NA	NA		
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	M	4.5	2	8.13	23.20	23.19	27.98	27.99	85.4	85.3	5.84	5.84	1.7	1.7	1.6	0.15	0.15	0.16	0.011	0.011	0.15	0.59	0.12	0.89	NA	NA		
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	M	4.5	3																	0.18	0.60	0.13	0.91					
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	B	8	1	8.12	23.53	23.52	27.90	27.91	81.1	81.2	5.67	5.68	2.4	2.3	2.4	0.16	0.16	0.16	0.012	0.012	0.16	0.59	0.12	0.89	NA	NA		
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	B	8	2	8.12	23.50	23.52	27.91	27.91	81.3	81.2	5.68	5.68	2.3	2.3	2.4	0.16	0.16	0.16	0.012	0.012	0.16	0.59	0.12	0.89	NA	NA		
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	B	8	3																	0.20	0.62	0.14	0.96					
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	B	11	3																	0.20	0.62	0.14	0.96					
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	S	1	1	8.07	21.06	21.07	27.13	27.13	89.9	89.8	6.11	6.10	1.0	0.9	1.0	0.16	0.16	0.16	0.010	0.010	0.16	0.58	0.11	0.85	NA	NA		
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	S	1	2	8.07	21.08	21.07	27.12	27.13	89.7	89.8	6.09	6.10	0.9	0.9	1.0	0.16	0.16	0.16	0.010	0.010	0.16	0.58	0.11	0.85	NA	NA		
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	S	1	3																	0.16	0.57	0.11	0.84					
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	M	4	1	8.08	21.37	21.39	27.04	27.05	86.3	86.3	5.87	5.87	1.4	1.5	1.5	0.16	0.16	0.16	0.010	0.010	0.16	0.58	0.11	0.85	NA	NA		
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	M	4	2	8.09	21.40	21.39	27.05	27.05	86.2	86.3	5.86	5.87	1.5	1.5	1.5	0.16	0.16	0.16	0.010	0.010	0.16	0.58	0.11	0.85	NA	NA		
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	M	4	3																	0.16	0.57	0.11	0.84					
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	B	7	1	8.08	21.62	21.61	26.96	26.96	82.4	82.3	5.60	5.60	2.4	2.3	2.4	0.17	0.17	0.17	0.011	0.011	0.17	0.58	0.11	0.85	NA	NA		
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	B	7	2	8.07	21.59	21.61	26.95	26.96	82.2	82.3	5.59	5.60	2.3	2.3	2.4	0.17	0.17	0.17	0.011	0.011	0.17	0.58	0.11	0.85	NA	NA		
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	B	7	3																	0.16	0.57	0.11	0.84					

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																										
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)					
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	
SR4	6/7/2019	Mid-Ebb	Fine	Moderate	13:23	4	S	1	1	8.10	23.01	23.01	27.63	27.62	82.4	82.5	5.64	5.65	5.65	5.65	1.0	0.9	1.0	0.29	0.29	0.29	0.020	0.020	0.020	NA	NA	NA	NA	NA	NA	
SR4	6/7/2019	Mid-Ebb	Fine	Moderate	13:23	4	S	1	2	8.09	23.00	23.01	27.61	27.62	82.6	82.5	5.65	5.65	5.65	5.65	1.0	0.9	1.0	0.29	0.29	0.29	0.020	0.020	0.020	NA	NA	NA	NA	NA	NA	
SR4	6/7/2019	Mid-Ebb	Fine	Moderate	13:23	4	S	1	3																											
SR4	6/7/2019	Mid-Ebb	Fine	Moderate	13:23	4	M		1		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
SR4	6/7/2019	Mid-Ebb	Fine	Moderate	13:23	4	M		3																											
SR4	6/7/2019	Mid-Ebb	Fine	Moderate	13:23	4	B	3	1	8.09	23.24	23.23	27.56	27.57	79.8	79.7	5.46	5.44	5.45	5.45	1.3	1.1	1.2	0.31	0.31	0.31	0.021	0.021	0.021	NA	NA	NA	NA	NA	NA	
SR4	6/7/2019	Mid-Ebb	Fine	Moderate	13:23	4	B	3	2	8.09	23.21	23.23	27.57	27.57	79.5	79.7	5.44	5.45	5.45	5.45	1.1	1.1	1.2	0.31	0.31	0.31	0.021	0.021	0.021	NA	NA	NA	NA	NA	NA	
SR4	6/7/2019	Mid-Ebb	Fine	Moderate	13:23	4	B	3	3																											
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	S	1	1	8.10	22.49	22.50	27.49	27.49	91.1	90.9	6.19	6.16	6.18	6.18	1.0	0.9	1.0	NA	NA	NA	NA	NA	NA	0.15	0.58	0.11	0.84		0.84	
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	S	1	2	8.11	22.51	22.50	27.49	27.49	90.7	90.9	6.16	6.16	6.18	6.18	0.9	0.9	1.0	NA	NA	NA	NA	NA	NA	0.16	0.58	0.11	0.85		0.84	
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	S	1	3																											
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	M	5.5	1	8.12	22.76	22.78	27.40	27.40	85.2	85.1	5.79	5.77	5.78	5.78	1.4	1.5	1.5	NA	NA	NA	NA	NA	NA	0.15	0.57	0.11	0.83		0.89	
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	M	5.5	2	8.11	22.79	22.78	27.39	27.40	84.9	85.1	5.77	5.78	5.78	5.78	1.5	1.5	1.5	NA	NA	NA	NA	NA	NA	0.18	0.59	0.12	0.89		0.89	
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	M	5.5	3																											
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	B	10	1	8.13	23.04	23.03	27.30	27.29	81.2	81.4	5.52	5.54	5.53	5.53	2.2	2.4	2.3	NA	NA	NA	NA	NA	NA	0.20	0.60	0.15	0.95		0.95	
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	B	10	2	8.12	23.01	23.03	27.28	27.29	81.5	81.4	5.54	5.54	5.53	5.53	2.4	2.4	2.3	NA	NA	NA	NA	NA	NA	0.21	0.60	0.14	0.95		0.95	
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	B	10	3																											
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	S	1	1	8.07	23.76	23.75	27.90	27.90	79.9	80.0	5.54	5.56	5.55	5.55	1.7	1.6	1.7	0.29	0.29	0.29	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	S	1	2	8.09	23.74	23.75	27.89	27.90	80.1	80.0	5.56	5.56	5.55	5.55	1.6	1.6	1.7	0.29	0.29	0.29	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	S	1	3																											
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	M	7.5	1	8.08	23.99	24.01	27.81	27.82	73.2	73.1	5.08	5.05	5.07	5.07	2.4	2.3	2.4	0.28	0.28	0.28	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	M	7.5	2	8.09	24.02	24.01	27.82	27.82	72.9	73.1	5.05	5.05	5.07	5.07	2.3	2.3	2.4	0.28	0.28	0.28	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	M	7.5	3																											
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	B	14	1	8.08	24.37	24.36	27.73	27.73	67.7	67.8	4.70	4.71	4.71	4.71	3.2	3.0	3.1	0.27	0.27	0.27	0.018	0.018	0.017	NA	NA	NA	NA	NA	NA	
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	B	14	2	8.08	24.35	24.36	27.72	27.73	67.8	67.8	4.71	4.71	4.71	4.71	3.0	3.0	3.1	0.25	0.25	0.26	0.016	0.016	0.017	NA	NA	NA	NA	NA	NA	
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	B	14	3																											
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	S	1	1	8.06	24.03	24.05	27.70	27.71	88.1	88.0	6.07	6.05	6.06	6.06	1.5	1.7	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	S	1	2	8.05	24.07	24.05	27.71	27.71	87.9	88.0	6.05	6.05	6.06	6.06	1.7	1.7	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	S	1	3																											
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	M	7	1	8.07	24.36	24.38	27.62	27.62	82.0	81.9	5.65	5.63	5.64	5.64	2.1	2.3	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	M	7	2	8.08	24.40	24.38	27.61	27.62	81.8	81.9	5.63	5.63	5.64	5.64	2.3	2.3	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	M	7	3																											
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	B	13	1	8.09	24.81	24.80	27.52	27.52	79.0	78.9	5.44	5.44	5.44	5.44	3.0	3.0	3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	B	13	2	8.08	24.79	24.80	27.52	27.52	78.8	78.9	5.43	5.43	5.44	5.44	3.2	3.2	3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																													
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)			TIN-Nitrate (mg/L-N)			TIN-Nitrite (mg/L-N)			Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.			
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	S	1	1	4	0.16			0.012			0.16	0.63	0.11	0.90				3700			NA			<1									
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	S	1	2	3	0.15	0.16		0.011	0.012		0.15	0.58	0.11	0.84	0.88		3600	3650		NA	NA	NA	1	1									
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	S	1	3							0.14	0.64	0.11	0.89																				
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	M	14	1	2	0.14			0.011			0.14	0.67	0.11	0.92			3300			NA			<1										
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	M	14	2	2	0.14	0.14	0.16	0.011	0.011	0.012	0.14	0.59	0.11	0.84	0.88	0.90	3200	3250	3479	NA	NA	NA	1	1	1								
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	M	14	3							0.18	0.59	0.12	0.89																				
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	B	27	1	3	0.20			0.016			0.20	0.68	0.11	0.99			3500			NA			<1										
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	B	27	2	3	0.18	0.19		0.014	0.015		0.18	0.60	0.11	0.89	0.94		3600	3550		NA	NA	NA	<1		1								
C1A	6/7/2019	Mid-Ebb	Fine	Moderate	11:40	28	B	27	3							0.14	0.69	0.11	0.94																				
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	S	1	1	2	0.41			0.022			0.41	0.41	0.06	0.88			210			NA			<1										
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	S	1	2	3	0.32	0.37		0.017	0.020		0.32	0.38	0.06	0.76	0.81		250	229		NA	NA	NA	<1		1								
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	S	1	3							0.35	0.39	0.06	0.80																				
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	M	6.5	1	3	0.31			0.017			0.31	0.40	0.06	0.77			310			NA			<1										
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	M	6.5	2	3	0.31	0.31	0.33	0.017	0.017	0.018	0.31	0.43	0.06	0.80	0.77	0.79	370	339	274	NA	NA	NA	<1		1								
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	M	6.5	3							0.32	0.37	0.06	0.75																				
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	B	12	1	3	0.31			0.017			0.31	0.39	0.06	0.76			220			NA			<1										
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	B	12	2	3	0.32	0.32		0.018	0.018		0.32	0.44	0.06	0.82	0.78		320	265		NA	NA	NA	<1		1								
C2A	6/7/2019	Mid-Ebb	Fine	Moderate	14:25	13	B	12	3							0.30	0.41	0.06	0.77																				
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	S	1	1	3	NA			NA			0.15	0.55	0.11	0.81			NA			NA			NA										
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	S	1	2	3	NA	NA		NA	NA		0.20	0.66	0.11	0.97	0.89		NA	NA		NA	NA	NA	NA	NA									
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	S	1	3							0.14	0.65	0.11	0.90																				
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	M	6	1	3	NA			NA			0.15	0.58	0.11	0.84			NA			NA			NA		NA								
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	M	6	2	3	NA	NA		NA	NA		0.16	0.63	0.11	0.90	0.88	0.89	NA	NA		NA	NA	NA	NA	NA	NA								
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	M	6	3							0.16	0.63	0.11	0.90																				
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	B	11	1	4	NA			NA			0.15	0.59	0.11	0.85			NA			NA			NA		NA								
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	B	11	2	4	NA	NA		NA	NA		0.16	0.62	0.11	0.89	0.89		NA	NA		NA	NA	NA	NA	NA									
G2	6/7/2019	Mid-Ebb	Fine	Moderate	12:45	12	B	11	3							0.15	0.68	0.11	0.94																				
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	S	1	1	3	0.12			0.009			NA	NA	NA	NA			NA			NA			NA		NA								
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	S	1	2	3	0.12	0.12		0.009	0.009		NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA	NA								
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	S	1	3							NA	NA	NA	NA																				
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	M	4.5	1	2	0.13			0.010			NA	NA	NA	NA			NA			NA			NA		NA								
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	M	4.5	2	2	0.14	0.14	0.13	0.010	0.010	0.010	NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA	NA								
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	M	4.5	3							NA	NA	NA	NA																				
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	B	8	1	3	0.15			0.011			NA	NA	NA	NA			NA			NA			NA		NA								
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	B	8	2	2	0.13	0.14		0.009	0.010		NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA	NA								
SR2	6/7/2019	Mid-Ebb	Fine	Moderate	12:23	9	B	8	3							NA	NA	NA	NA																				
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	S	1	1	3	0.16			0.010			NA	NA	NA	NA			NA			NA			NA		NA								
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	S	1	2	3	0.15	0.16		0.009	0.010		NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA	NA								
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	S	1	3							NA	NA	NA	NA																				
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	M	4	1	3	0.15			0.010			NA	NA	NA	NA			NA			NA			NA		NA								
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	M	4	2	3	0.14	0.15	0.15	0.009	0.009	0.009	NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA	NA								
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	M	4	3							NA	NA	NA	NA																				
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	B	7	1	3	0.15			0.009			NA	NA	NA	NA			NA			NA			NA		NA								
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	B	7	2	3	0.15	0.15		0.009	0.009		NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA	NA								
SR3	6/7/2019	Mid-Ebb	Fine	Moderate	13:04	8	B	7	3							NA	NA	NA	NA																				

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	6/7/2019	Mid-Ebb	Fine	Moderate	13:23	4	S	1	1	3	0.29	0.28	0.29	0.020	0.019	0.019	NA	NA	NA	NA	NA	3900	3900	3900	NA	NA	NA	<1	<1	1	1		
SR4	6/7/2019	Mid-Ebb	Fine	Moderate	13:23	4	S	1	2	3	0.29	0.28	0.29	0.020	0.019	0.019	NA	NA	NA	NA	NA	3900	3900	3900	NA	NA	NA	<1	<1	1	1		
SR4	6/7/2019	Mid-Ebb	Fine	Moderate	13:23	4	S	1	3	3	0.29	0.28	0.29	0.020	0.019	0.019	NA	NA	NA	NA	NA	3900	3900	3900	NA	NA	NA	<1	<1	1	1		
SR4	6/7/2019	Mid-Ebb	Fine	Moderate	13:23	4	M	1	1	1	0.29	0.28	0.29	0.020	0.019	0.019	NA	NA	NA	NA	NA	4244	4244	4244	NA	NA	NA	<1	<1	1	1		
SR4	6/7/2019	Mid-Ebb	Fine	Moderate	13:23	4	M	2	2	2	0.29	0.28	0.29	0.020	0.019	0.019	NA	NA	NA	NA	NA	4244	4244	4244	NA	NA	NA	<1	<1	1	1		
SR4	6/7/2019	Mid-Ebb	Fine	Moderate	13:23	4	B	3	1	2	0.29	0.28	0.29	0.020	0.019	0.019	NA	NA	NA	NA	NA	4244	4244	4244	NA	NA	NA	<1	<1	1	1		
SR4	6/7/2019	Mid-Ebb	Fine	Moderate	13:23	4	B	3	2	3	0.29	0.28	0.29	0.020	0.019	0.019	NA	NA	NA	NA	NA	4244	4244	4244	NA	NA	NA	<1	<1	1	1		
SR4	6/7/2019	Mid-Ebb	Fine	Moderate	13:23	4	B	3	3	3	0.29	0.28	0.29	0.020	0.019	0.019	NA	NA	NA	NA	NA	4244	4244	4244	NA	NA	NA	<1	<1	1	1		
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	S	1	1	3	NA	NA	NA	NA	NA	NA	0.13	0.57	0.11	0.81	0.87	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	S	1	2	3	NA	NA	NA	NA	NA	NA	0.12	0.61	0.11	0.84	0.87	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	S	1	3	3	NA	NA	NA	NA	NA	NA	0.13	0.73	0.11	0.97	0.87	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	M	5.5	1	3	NA	NA	NA	NA	NA	NA	0.14	0.66	0.11	0.91	0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	M	5.5	2	3	NA	NA	NA	NA	NA	NA	0.13	0.62	0.11	0.86	0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	M	5.5	3	3	NA	NA	NA	NA	NA	NA	0.13	0.62	0.11	0.86	0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	B	10	1	3	NA	NA	NA	NA	NA	NA	0.13	0.62	0.11	0.86	0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	B	10	2	2	NA	NA	NA	NA	NA	NA	0.13	0.70	0.11	0.94	0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	6/7/2019	Mid-Ebb	Fine	Moderate	11:59	11	B	10	3	3	NA	NA	NA	NA	NA	NA	0.13	0.61	0.11	0.85	0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	S	1	1	2	0.29	0.27	0.28	0.019	0.018	0.019	NA	NA	NA	NA	NA	5000	2700	3674	NA	NA	NA	<1	<1	1	1		
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	S	1	2	3	0.29	0.27	0.28	0.019	0.018	0.019	NA	NA	NA	NA	NA	5000	2700	3674	NA	NA	NA	<1	<1	1	1		
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	S	1	3	3	0.29	0.27	0.28	0.019	0.018	0.019	NA	NA	NA	NA	NA	5000	2700	3674	NA	NA	NA	<1	<1	1	1		
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	M	7.5	1	2	0.29	0.27	0.28	0.019	0.018	0.019	NA	NA	NA	NA	NA	3200	2600	2884	3333	NA	NA	NA	<1	<1	1	1	
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	M	7.5	2	3	0.29	0.27	0.28	0.019	0.018	0.019	NA	NA	NA	NA	NA	3200	2600	2884	3333	NA	NA	NA	<1	<1	1	1	
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	M	7.5	3	3	0.29	0.27	0.28	0.019	0.018	0.019	NA	NA	NA	NA	NA	3200	2600	2884	3333	NA	NA	NA	<1	<1	1	1	
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	B	14	1	2	0.29	0.26	0.27	0.018	0.017	0.018	NA	NA	NA	NA	NA	3700	3300	3494	NA	NA	NA	<1	<1	1	1		
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	B	14	2	3	0.29	0.26	0.27	0.018	0.017	0.018	NA	NA	NA	NA	NA	3700	3300	3494	NA	NA	NA	<1	<1	1	1		
SR12	6/7/2019	Mid-Ebb	Fine	Moderate	13:41	15	B	14	3	3	0.29	0.26	0.27	0.018	0.017	0.018	NA	NA	NA	NA	NA	3700	3300	3494	NA	NA	NA	<1	<1	1	1		
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	S	1	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	S	1	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	S	1	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	M	7	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	M	7	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	M	7	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	B	13	1	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	B	13	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	6/7/2019	Mid-Ebb	Fine	Moderate	14:02	14	B	13	3	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																												
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Ammonia (mg/L-N)		UIA (mg/L-N)		TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)									
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.						
																												Value	Value	Value	Value	Ave.	Depth Ave.					
C1A	9/7/2019	Mid-Flood	Fine	Verv	14:38	28	S	1	1	8.20	13.76	13.79	29.50	29.50	98.5	99.0	6.97	7.01	4.4	4.2	0.07	0.07	0.007	0.007	0.07	1.20	0.11	1.38										
C1A	9/7/2019	Mid-Flood	Fine	Verv	14:38	28	S	1	2	8.20	13.81	13.79	29.49	29.50	99.4	99.0	7.04	7.01	4.0	4.2	0.07	0.07	0.007	0.007	0.07	1.21	0.11	1.39								1.39		
C1A	9/7/2019	Mid-Flood	Fine	Verv	14:38	28	S	1	3																0.08	1.21	0.11	1.40										
C1A	9/7/2019	Mid-Flood	Fine	Verv	14:38	28	M	14	1	8.02	30.62	30.59	25.92	25.92	35.4	35.6	2.46	2.48	4.6	4.6	0.08	0.08	0.004	0.004	0.08	1.30	0.11	1.49								1.50		
C1A	9/7/2019	Mid-Flood	Fine	Verv	14:38	28	M	14	2	8.02	30.56	30.59	25.92	25.92	35.8	35.6	2.50	2.48	4.6	4.6	0.08	0.08	0.004	0.004	0.08	1.28	0.12	1.48								1.50		
C1A	9/7/2019	Mid-Flood	Fine	Verv	14:38	28	M	14	3																0.08	1.32	0.12	1.52									1.29	
C1A	9/7/2019	Mid-Flood	Fine	Verv	14:38	28	B	27	1	8.01	31.05	31.06	25.02	25.03	34.8	34.8	2.38	2.38	4.7	4.7	0.09	0.09	0.004	0.004	0.09	1.12	0.11	1.32										
C1A	9/7/2019	Mid-Flood	Fine	Verv	14:38	28	B	27	2	8.01	31.07	31.06	25.04	25.03	34.7	34.8	2.37	2.38	4.7	4.7	0.07	0.07	0.003	0.004	0.07	1.10	0.10	1.27										
C1A	9/7/2019	Mid-Flood	Fine	Verv	14:38	28	B	27	3																0.07	1.10	0.10	1.27										
C2A	9/7/2019	Mid-Flood	Fine	Verv	12:07	13	S	1	1	8.07	22.31	22.32	28.16	28.16	72.6	72.6	5.00	5.00	1.2	1.1	0.24	0.25	0.016	0.016	0.24	0.49	0.09	0.82								0.83		
C2A	9/7/2019	Mid-Flood	Fine	Verv	12:07	13	S	1	2	8.07	22.32	22.32	28.16	28.16	72.6	72.6	5.00	5.00	1.1	1.1	0.25	0.25	0.017	0.016	0.25	0.49	0.09	0.83									0.83	
C2A	9/7/2019	Mid-Flood	Fine	Verv	12:07	13	S	1	3																0.25	0.50	0.09	0.84										
C2A	9/7/2019	Mid-Flood	Fine	Verv	12:07	13	M	6.5	1	8.05	23.16	23.15	27.92	27.93	68.1	68.2	4.69	4.70	1.1	1.1	0.26	0.25	0.017	0.016	0.26	0.52	0.10	0.88									0.87	
C2A	9/7/2019	Mid-Flood	Fine	Verv	12:07	13	M	6.5	2	8.08	23.14	23.15	27.94	27.93	68.2	68.2	4.70	4.70	1.2	1.1	0.24	0.25	0.015	0.016	0.24	0.52	0.12	0.88									0.87	
C2A	9/7/2019	Mid-Flood	Fine	Verv	12:07	13	M	6.5	3																0.25	0.52	0.11	0.88									0.88	
C2A	9/7/2019	Mid-Flood	Fine	Verv	12:07	13	B	12	1	8.00	27.56	27.50	26.96	26.97	40.4	40.5	2.79	2.80	3.1	3.0	0.27	0.27	0.014	0.014	0.27	0.52	0.13	0.92									0.91	
C2A	9/7/2019	Mid-Flood	Fine	Verv	12:07	13	B	12	2	8.00	27.44	27.50	26.98	26.97	40.6	40.5	2.81	2.80	3.0	3.0	0.26	0.26	0.013	0.014	0.26	0.51	0.12	0.89										
C2A	9/7/2019	Mid-Flood	Fine	Verv	12:07	13	B	12	3																0.27	0.52	0.13	0.92										
G2	9/7/2019	Mid-Flood	Fine	Verv	13:33	12	S	1	1	8.11	18.04	18.04	28.70	28.71	77.4	77.5	5.42	5.43	1.8	1.8	NA	NA	NA	NA	0.09	0.60	0.12	0.81									0.83	
G2	9/7/2019	Mid-Flood	Fine	Verv	13:33	12	S	1	2	8.11	18.03	18.04	28.71	28.71	77.5	77.5	5.43	5.43	1.8	1.8	NA	NA	NA	NA	0.10	0.61	0.12	0.83										
G2	9/7/2019	Mid-Flood	Fine	Verv	13:33	12	S	1	3																0.09	0.61	0.13	0.83										
G2	9/7/2019	Mid-Flood	Fine	Verv	13:33	12	M	6	1	8.07	23.51	23.50	27.52	27.52	51.2	51.1	3.54	3.53	1.9	1.9	NA	NA	NA	NA	0.10	0.69	0.15	0.94									0.94	
G2	9/7/2019	Mid-Flood	Fine	Verv	13:33	12	M	6	2	8.07	23.49	23.50	27.52	27.52	51.0	51.1	3.52	3.53	1.9	1.9	NA	NA	NA	NA	0.11	0.69	0.15	0.95										
G2	9/7/2019	Mid-Flood	Fine	Verv	13:33	12	M	6	3																0.11	0.69	0.15	0.95										0.94
G2	9/7/2019	Mid-Flood	Fine	Verv	13:33	12	B	11	1	8.03	25.04	25.04	27.17	27.18	43.6	44.0	3.03	3.06	1.7	1.7	NA	NA	NA	NA	0.12	0.69	0.16	0.97										
G2	9/7/2019	Mid-Flood	Fine	Verv	13:33	12	B	11	2	8.03	25.03	25.04	27.18	27.18	44.4	44.0	3.09	3.06	1.7	1.7	NA	NA	NA	NA	0.13	0.69	0.15	0.97										0.97
G2	9/7/2019	Mid-Flood	Fine	Verv	13:33	12	B	11	3																0.12	0.70	0.15	0.97										
SR2	9/7/2019	Mid-Flood	Fine	Verv	13:48	9	S	1	1	8.16	17.47	17.47	28.93	28.93	82.0	81.9	5.73	5.73	1.6	1.6	0.08	0.08	0.007	0.007	NA	NA	NA	NA									NA	
SR2	9/7/2019	Mid-Flood	Fine	Verv	13:48	9	S	1	2	8.16	17.47	17.47	28.93	28.93	81.9	82.0	5.72	5.73	1.6	1.6	0.08	0.08	0.007	0.007	NA	NA	NA	NA									NA	
SR2	9/7/2019	Mid-Flood	Fine	Verv	13:48	9	S	1	3																NA	NA	NA	NA										NA
SR2	9/7/2019	Mid-Flood	Fine	Verv	13:48	9	M	4.5	1	8.11	18.36	18.35	28.25	28.27	71.5	71.8	5.02	5.05	1.8	1.8	0.09	0.09	0.007	0.007	NA	NA	NA	NA									NA	
SR2	9/7/2019	Mid-Flood	Fine	Verv	13:48	9	M	4.5	2	8.11	18.34	18.35	28.28	28.27	72.1	71.8	5.08	5.05	1.8	1.8	0.09	0.09	0.007	0.007	NA	NA	NA	NA									NA	
SR2	9/7/2019	Mid-Flood	Fine	Verv	13:48	9	M	4.5	3																NA	NA	NA	NA										NA
SR2	9/7/2019	Mid-Flood	Fine	Verv	13:48	9	B	8	1	8.06	25.20	25.18	27.20	27.21	65.1	65.5	4.65	4.68	1.4	1.4	0.09	0.09	0.005	0.005	NA	NA	NA	NA									NA	
SR2	9/7/2019	Mid-Flood	Fine	Verv	13:48	9	B	8	2	8.06	25.15	25.18	27.21	27.21	65.8	65.5	4.70	4.68	1.4	1.4	0.09	0.09	0.005	0.005	NA	NA	NA	NA									NA	
SR2	9/7/2019	Mid-Flood	Fine	Verv	13:48	9	B	8	3																NA	NA	NA	NA										NA
SR3	9/7/2019	Mid-Flood	Fine	Verv	13:19	8	S	1	1	8.14	17.25	17.25	28.81	28.86	80.6	80.8	5.72	5.71	1.8	1.8	0.08	0.09	0.007	0.007	NA	NA	NA	NA									NA	
SR3	9/7/2019	Mid-Flood	Fine	Verv	13:19	8	S	1	2	8.14	17.25	17.25	28.90	28.86	81.0	80.8	5.70	5.71	1.8	1.8	0.09	0.09	0.008	0.007	NA	NA	NA	NA									NA	
SR3	9/7/2019	Mid-Flood	Fine	Verv	13:19	8	S	1	3																NA	NA	NA	NA										NA
SR3	9/7/2019	Mid-Flood	Fine	Verv	13:19	8	M	4	1	8.04	23.41	23.42	27.53	27.53	71.7	71.8	5.12	5.13	2.6	2.6	0.09	0.09	0.005	0.005	NA	NA	NA	NA									NA	
SR3	9/7/2019	Mid-Flood	Fine	Verv	13:19	8	M	4	2	8.04	23.43	23.42	27.52	27.53	71.8	71.8	5.13	5.13	2.6	2.6	0.09	0.09	0.005	0.005	NA	NA	NA	NA									NA	
SR3	9/7/2019	Mid-Flood	Fine	Verv	13:19	8	M	4	3																NA	NA	NA	NA										NA
SR3	9/7/2019	Mid-Flood	Fine	Verv	13:19	8	B	7	1	8.03	23.47	23.48	27.49	27.49	64.0	64.3	4.57	4.60	2.6	2.6	0.11	0.11	0.006	0.006	NA	NA	NA	NA									NA	
SR3	9/7/2019	Mid-Flood	Fine	Verv	13:19	8	B	7	2	8.03	23.48	23.48	27.49	27.49	64.7	64.3	4.62	4.60	2.7	2.6	0.10	0.10	0.006	0.006	NA	NA	NA	NA									NA	
SR3	9/7/2019	Mid-Flood	Fine	Verv	13:19	8	B	7	3																NA	NA	NA	NA										NA

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																									
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Ammonia (mg/L-N)			UJA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)		
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value
SR4	9/7/2019	Mid-Flood	Fine	Very	13:03	4	S	1	1	8.15	17.74	17.74	28.76	28.76	79.0	79.2	5.53	5.55	1.4	1.4	1.4	0.08	0.08	0.08	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA		
SR4	9/7/2019	Mid-Flood	Fine	Very	13:03	4	S	1	2	8.15	17.74	17.74	28.76	28.76	79.4	79.2	5.56	5.55	1.4	1.4	1.4	0.08	0.08	0.08	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA		
SR4	9/7/2019	Mid-Flood	Fine	Very	13:03	4	S	1	3																		NA	NA	NA	NA	NA	NA			
SR4	9/7/2019	Mid-Flood	Fine	Very	13:03	4	M		1																		NA	NA	NA	NA	NA	NA			
SR4	9/7/2019	Mid-Flood	Fine	Very	13:03	4	M		2																		NA	NA	NA	NA	NA	NA			
SR4	9/7/2019	Mid-Flood	Fine	Very	13:03	4	M		3																		NA	NA	NA	NA	NA	NA			
SR4	9/7/2019	Mid-Flood	Fine	Very	13:03	4	B	3	1	8.11	18.09	18.10	28.55	28.55	70.0	69.8	4.91	4.91	1.6	1.6	1.6	0.09	0.09	0.09	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA		
SR4	9/7/2019	Mid-Flood	Fine	Very	13:03	4	B	3	2	8.11	18.11	18.10	28.54	28.55	69.8	69.9	4.90	4.91	1.7	1.6	1.6	0.09	0.09	0.09	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA		
SR4	9/7/2019	Mid-Flood	Fine	Very	13:03	4	B	3	3																		NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Flood	Fine	Very	14:12	11	S	1	1	8.23	14.03	14.06	29.46	29.46	95.3	95.0	6.70	6.68	2.1	2.1	2.1	NA	NA	NA	NA	NA	0.07	1.22	0.13	1.42	1.39				
SR5	9/7/2019	Mid-Flood	Fine	Very	14:12	11	S	1	2	8.23	14.09	14.06	29.46	29.46	94.6	95.0	6.66	6.68	2.1	2.1	2.1	NA	NA	NA	NA	NA	0.08	1.21	0.12	1.41	1.39				
SR5	9/7/2019	Mid-Flood	Fine	Very	14:12	11	S	1	3																		0.07	1.15	0.13	1.35	1.39				
SR5	9/7/2019	Mid-Flood	Fine	Very	14:12	11	M	5.5	1	8.12	17.42	17.38	28.73	28.74	84.9	84.5	5.97	5.93	2.1	2.1	2.1	NA	NA	NA	NA	NA	0.09	1.14	0.14	1.37	1.36				
SR5	9/7/2019	Mid-Flood	Fine	Very	14:12	11	M	5.5	2	8.12	17.35	17.39	28.75	28.74	85.2	85.1	5.99	5.98	2.1	2.1	2.1	NA	NA	NA	NA	NA	0.10	1.13	0.13	1.36	1.36	1.39			
SR5	9/7/2019	Mid-Flood	Fine	Very	14:12	11	M	5.5	3																		0.09	1.13	0.13	1.35	1.36	1.39			
SR5	9/7/2019	Mid-Flood	Fine	Very	14:12	11	B	10	1	8.12	17.44	17.38	28.75	28.76	84.9	84.5	5.97	5.93	2.4	2.4	2.4	NA	NA	NA	NA	NA	0.13	1.14	0.14	1.41	1.41	1.41			
SR5	9/7/2019	Mid-Flood	Fine	Very	14:12	11	B	10	2	8.12	17.32	17.38	28.76	28.76	84.1	84.5	5.89	5.93	2.5	2.4	2.4	NA	NA	NA	NA	NA	0.12	1.15	0.14	1.41	1.41	1.41			
SR5	9/7/2019	Mid-Flood	Fine	Very	14:12	11	B	10	3																		0.13	1.15	0.14	1.42	1.41	1.41			
SR12	9/7/2019	Mid-Flood	Fine	Very	12:44	15	S	1	1	8.16	17.97	17.97	28.82	28.82	80.4	80.4	5.61	5.61	1.4	1.4	1.4	0.11	0.11	0.11	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA		
SR12	9/7/2019	Mid-Flood	Fine	Very	12:44	15	S	1	2	8.16	17.97	17.97	28.82	28.82	80.4	80.4	5.61	5.61	1.4	1.4	1.4	0.11	0.11	0.11	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA		
SR12	9/7/2019	Mid-Flood	Fine	Very	12:44	15	S	1	3																		NA	NA	NA	NA	NA	NA			
SR12	9/7/2019	Mid-Flood	Fine	Very	12:44	15	M	7.5	1	8.04	22.84	22.89	27.73	27.72	52.5	52.3	3.62	3.61	1.3	1.3	1.3	0.12	0.11	0.12	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA		
SR12	9/7/2019	Mid-Flood	Fine	Very	12:44	15	M	7.5	2	8.04	22.93	22.89	27.71	27.72	52.3	52.4	3.60	3.61	1.3	1.3	1.3	0.12	0.11	0.12	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA		
SR12	9/7/2019	Mid-Flood	Fine	Very	12:44	15	M	7.5	3																		NA	NA	NA	NA	NA	NA			
SR12	9/7/2019	Mid-Flood	Fine	Very	12:44	15	B	14	1	7.99	29.70	29.71	26.15	26.15	52.5	52.9	3.75	3.77	2.1	2.1	2.1	0.11	0.12	0.12	0.005	0.006	0.005	NA	NA	NA	NA	NA	NA		
SR12	9/7/2019	Mid-Flood	Fine	Very	12:44	15	B	14	2	7.99	29.71	29.71	26.15	26.15	52.9	52.7	3.78	3.77	2.1	2.1	2.1	0.12	0.12	0.12	0.005	0.006	0.005	NA	NA	NA	NA	NA	NA		
SR12	9/7/2019	Mid-Flood	Fine	Very	12:44	15	B	14	3																		NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Flood	Fine	Very	12:25	14	S	1	1	8.08	22.47	22.48	28.12	28.12	78.4	78.5	5.60	5.61	1.0	1.1	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Flood	Fine	Very	12:25	14	S	1	2	8.08	22.48	22.48	28.12	28.12	78.5	78.5	5.61	5.61	1.1	1.1	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Flood	Fine	Very	12:25	14	S	1	3																		NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Flood	Fine	Very	12:25	14	M	7	1	8.04	23.88	23.89	27.60	27.60	54.5	54.3	3.89	3.89	1.1	1.1	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Flood	Fine	Very	12:25	14	M	7	2	8.04	23.89	23.89	27.60	27.60	54.3	54.4	3.88	3.89	1.1	1.1	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Flood	Fine	Very	12:25	14	M	7	3																		NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Flood	Fine	Very	12:25	14	B	13	1	8.01	27.22	27.20	26.82	26.82	52.4	52.4	3.74	3.75	3.4	3.4	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Flood	Fine	Very	12:25	14	B	13	2	8.01	27.18	27.20	26.82	26.82	52.5	52.4	3.75	3.75	3.4	3.4	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Flood	Fine	Very	12:25	14	B	13	3																		NA	NA	NA	NA	NA	NA			

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																													
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)								
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.						
C1A	9/7/2019	Mid-Flood	Fine	Very	14:38	28	S	1	1	3	0.06																	1											
C1A	9/7/2019	Mid-Flood	Fine	Very	14:38	28	S	1	2	3	0.07	0.07																1											
C1A	9/7/2019	Mid-Flood	Fine	Very	14:38	28	S	1	3																				1										
C1A	9/7/2019	Mid-Flood	Fine	Very	14:38	28	M	14	1	3	0.06																	1											
C1A	9/7/2019	Mid-Flood	Fine	Very	14:38	28	M	14	2	3	0.07	0.07	0.07															1											
C1A	9/7/2019	Mid-Flood	Fine	Very	14:38	28	M	14	3																					1									
C1A	9/7/2019	Mid-Flood	Fine	Very	14:38	28	B	27	1	3	0.08																	2											
C1A	9/7/2019	Mid-Flood	Fine	Very	14:38	28	B	27	2	3	0.08	0.08																2											
C1A	9/7/2019	Mid-Flood	Fine	Very	14:38	28	B	27	3																						2								
C2A	9/7/2019	Mid-Flood	Fine	Very	12:07	13	S	1	1	2	0.23																					1							
C2A	9/7/2019	Mid-Flood	Fine	Very	12:07	13	S	1	2	2	0.22	0.23																				2							
C2A	9/7/2019	Mid-Flood	Fine	Very	12:07	13	S	1	3																								2						
C2A	9/7/2019	Mid-Flood	Fine	Very	12:07	13	M	6.5	1	3	0.24																						2						
C2A	9/7/2019	Mid-Flood	Fine	Very	12:07	13	M	6.5	2	2	0.23	0.24	0.24																				2						
C2A	9/7/2019	Mid-Flood	Fine	Very	12:07	13	M	6.5	3																									2					
C2A	9/7/2019	Mid-Flood	Fine	Very	12:07	13	B	12	1	3	0.24																							2					
C2A	9/7/2019	Mid-Flood	Fine	Very	12:07	13	B	12	2	3	0.25	0.25																						2					
C2A	9/7/2019	Mid-Flood	Fine	Very	12:07	13	B	12	3																										2				
G2	9/7/2019	Mid-Flood	Fine	Very	13:33	12	S	1	1	3	NA																								NA				
G2	9/7/2019	Mid-Flood	Fine	Very	13:33	12	S	1	2	3	NA	NA																								NA			
G2	9/7/2019	Mid-Flood	Fine	Very	13:33	12	S	1	3																											NA			
G2	9/7/2019	Mid-Flood	Fine	Very	13:33	12	M	6	1	3	NA																									NA			
G2	9/7/2019	Mid-Flood	Fine	Very	13:33	12	M	6	2	3	NA	NA																								NA			
G2	9/7/2019	Mid-Flood	Fine	Very	13:33	12	M	6	3																												NA		
G2	9/7/2019	Mid-Flood	Fine	Very	13:33	12	B	11	1	3	NA																										NA		
G2	9/7/2019	Mid-Flood	Fine	Very	13:33	12	B	11	2	3	NA	NA																									NA		
G2	9/7/2019	Mid-Flood	Fine	Very	13:33	12	B	11	3																												NA		
SR2	9/7/2019	Mid-Flood	Fine	Very	13:48	9	S	1	1	3	0.07																										NA		
SR2	9/7/2019	Mid-Flood	Fine	Very	13:48	9	S	1	2	3	0.07	0.07																									NA		
SR2	9/7/2019	Mid-Flood	Fine	Very	13:48	9	S	1	3																												NA		
SR2	9/7/2019	Mid-Flood	Fine	Very	13:48	9	M	4.5	1	3	0.08																											NA	
SR2	9/7/2019	Mid-Flood	Fine	Very	13:48	9	M	4.5	2	3	0.08	0.08	0.08																								NA		
SR2	9/7/2019	Mid-Flood	Fine	Very	13:48	9	M	4.5	3																												NA		
SR2	9/7/2019	Mid-Flood	Fine	Very	13:48	9	B	8	1	3	0.08																										NA		
SR2	9/7/2019	Mid-Flood	Fine	Very	13:48	9	B	8	2	3	0.08	0.08																									NA		
SR2	9/7/2019	Mid-Flood	Fine	Very	13:48	9	B	8	3																												NA		
SR3	9/7/2019	Mid-Flood	Fine	Very	13:19	8	S	1	1	3	0.08																											NA	
SR3	9/7/2019	Mid-Flood	Fine	Very	13:19	8	S	1	2	3	0.07	0.08																										NA	
SR3	9/7/2019	Mid-Flood	Fine	Very	13:19	8	S	1	3																													NA	
SR3	9/7/2019	Mid-Flood	Fine	Very	13:19	8	M	4	1	4	0.08																											NA	
SR3	9/7/2019	Mid-Flood	Fine	Very	13:19	8	M	4	2	3	0.09	0.09	0.08																									NA	
SR3	9/7/2019	Mid-Flood	Fine	Very	13:19	8	M	4	3																													NA	
SR3	9/7/2019	Mid-Flood	Fine	Very	13:19	8	B	7	1	3	0.09																											NA	
SR3	9/7/2019	Mid-Flood	Fine	Very	13:19	8	B	7	2	4	0.08	0.09																										NA	
SR3	9/7/2019	Mid-Flood	Fine	Very	13:19	8	B	7	3																													NA	

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	9/7/2019	Mid-Flood	Fine	Verv	13:03	4	S	1	1	2	0.07	0.08	0.006	0.007	0.007	NA	NA	NA	NA	NA	NA	650	790	932	NA	NA	NA	1	1	1			
SR4	9/7/2019	Mid-Flood	Fine	Verv	13:03	4	S	1	2	2	0.09	0.08	0.008	0.007	0.007	NA	NA	NA	NA	NA	NA	960	790	932	NA	NA	NA	1	1	1			
SR4	9/7/2019	Mid-Flood	Fine	Verv	13:03	4	S	1	3						NA	NA	NA	NA	NA	NA				NA	NA	NA							
SR4	9/7/2019	Mid-Flood	Fine	Verv	13:03	4	M		1						NA	NA	NA	NA	NA	NA				NA	NA	NA							
SR4	9/7/2019	Mid-Flood	Fine	Verv	13:03	4	M		2						NA	NA	NA	NA	NA	NA				NA	NA	NA							
SR4	9/7/2019	Mid-Flood	Fine	Verv	13:03	4	M		3						NA	NA	NA	NA	NA	NA				NA	NA	NA							
SR4	9/7/2019	Mid-Flood	Fine	Verv	13:03	4	B	3	1	2	0.08	0.09	0.006	0.006	0.006	NA	NA	NA	NA	NA	NA	1100	1100	1100	NA	NA	NA	1	1	1			
SR4	9/7/2019	Mid-Flood	Fine	Verv	13:03	4	B	3	2	2	0.09	0.09	0.007	0.006	0.006	NA	NA	NA	NA	NA	NA	1100	1100	1100	NA	NA	NA	1	1	1			
SR4	9/7/2019	Mid-Flood	Fine	Verv	13:03	4	B	3	3						NA	NA	NA	NA	NA	NA				NA	NA	NA							
SR5	9/7/2019	Mid-Flood	Fine	Verv	14:12	11	S	1	1	3	NA	NA	NA	NA	NA	0.06	1.20	0.11	1.37	1.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Flood	Fine	Verv	14:12	11	S	1	2	3	NA	NA	NA	NA	NA	0.06	1.30	0.11	1.47	1.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Flood	Fine	Verv	14:12	11	S	1	3						NA	NA	NA	NA	NA	NA				NA	NA	NA							
SR5	9/7/2019	Mid-Flood	Fine	Verv	14:12	11	M	5.5	1	3	NA	NA	NA	NA	NA	0.06	1.10	0.11	1.27	1.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Flood	Fine	Verv	14:12	11	M	5.5	2	4	NA	NA	NA	NA	NA	0.06	1.20	0.11	1.37	1.34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Flood	Fine	Verv	14:12	11	M	5.5	3						NA	NA	NA	NA	NA	NA				NA	NA	NA							
SR5	9/7/2019	Mid-Flood	Fine	Verv	14:12	11	B	10	1	4	NA	NA	NA	NA	NA	0.06	1.10	0.11	1.27	1.34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Flood	Fine	Verv	14:12	11	B	10	2	4	NA	NA	NA	NA	NA	0.07	1.30	0.11	1.48	1.34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Flood	Fine	Verv	14:12	11	B	10	3						NA	NA	NA	NA	NA	NA				NA	NA	NA							
SR12	9/7/2019	Mid-Flood	Fine	Verv	12:44	15	S	1	1	2	0.10	0.10	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	470	719	534	NA	NA	NA	1	1	1			
SR12	9/7/2019	Mid-Flood	Fine	Verv	12:44	15	S	1	2	2	0.10	0.10	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	1100	719	534	NA	NA	NA	1	1	1			
SR12	9/7/2019	Mid-Flood	Fine	Verv	12:44	15	S	1	3						NA	NA	NA	NA	NA	NA				NA	NA	NA							
SR12	9/7/2019	Mid-Flood	Fine	Verv	12:44	15	M	7.5	1	2	0.09	0.10	0.005	0.006	0.006	NA	NA	NA	NA	NA	NA	430	399	534	NA	NA	NA	1	1	1			
SR12	9/7/2019	Mid-Flood	Fine	Verv	12:44	15	M	7.5	2	2	0.10	0.10	0.006	0.006	0.006	NA	NA	NA	NA	NA	NA	370	399	534	NA	NA	NA	1	1	1			
SR12	9/7/2019	Mid-Flood	Fine	Verv	12:44	15	M	7.5	3						NA	NA	NA	NA	NA	NA				NA	NA	NA							
SR12	9/7/2019	Mid-Flood	Fine	Verv	12:44	15	B	14	1	2	0.09	0.10	0.004	0.004	0.004	NA	NA	NA	NA	NA	NA	550	530	530	NA	NA	NA	2	1	1			
SR12	9/7/2019	Mid-Flood	Fine	Verv	12:44	15	B	14	2	2	0.10	0.10	0.005	0.004	0.004	NA	NA	NA	NA	NA	NA	510	530	530	NA	NA	NA	1	1	1			
SR12	9/7/2019	Mid-Flood	Fine	Verv	12:44	15	B	14	3						NA	NA	NA	NA	NA	NA				NA	NA	NA							
SR13	9/7/2019	Mid-Flood	Fine	Verv	12:25	14	S	1	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Flood	Fine	Verv	12:25	14	S	1	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Flood	Fine	Verv	12:25	14	S	1	3						NA	NA	NA	NA	NA	NA				NA	NA	NA							
SR13	9/7/2019	Mid-Flood	Fine	Verv	12:25	14	M	7	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Flood	Fine	Verv	12:25	14	M	7	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Flood	Fine	Verv	12:25	14	M	7	3						NA	NA	NA	NA	NA	NA				NA	NA	NA							
SR13	9/7/2019	Mid-Flood	Fine	Verv	12:25	14	B	13	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Flood	Fine	Verv	12:25	14	B	13	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Flood	Fine	Verv	12:25	14	B	13	3						NA	NA	NA	NA	NA	NA				NA	NA	NA							

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																							
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)		
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value
SR4	9/7/2019	Mid-Ebb	Fine	Verv	16:19	4	S	1	1	8.16	17.77	28.79	79.6	5.58	1.5	0.08	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						
SR4	9/7/2019	Mid-Ebb	Fine	Verv	16:19	4	S	1	2	8.16	17.79	17.78	28.79	28.79	79.7	79.7	5.59	5.59	1.5	1.5	1.5	0.08	0.08	0.007	0.007	NA	NA	NA	NA	NA	NA		
SR4	9/7/2019	Mid-Ebb	Fine	Verv	16:19	4	S	1	3																			NA					
SR4	9/7/2019	Mid-Ebb	Fine	Verv	16:19	4	M		1																			NA					
SR4	9/7/2019	Mid-Ebb	Fine	Verv	16:19	4	M		2																			NA					
SR4	9/7/2019	Mid-Ebb	Fine	Verv	16:19	4	M		3																			NA					
SR4	9/7/2019	Mid-Ebb	Fine	Verv	16:19	4	B	3	1	8.11	18.13	18.13	28.57	28.58	69.7	69.7	4.89	4.89	1.7	1.7	1.7	0.08	0.08	0.006	0.006	NA	NA	NA	NA	NA	NA		
SR4	9/7/2019	Mid-Ebb	Fine	Verv	16:19	4	B	3	2	8.11	18.13	18.13	28.59	28.58	69.6	69.7	4.88	4.89	1.7	1.7	1.7	0.08	0.08	0.006	0.006	NA	NA	NA	NA	NA	NA		
SR4	9/7/2019	Mid-Ebb	Fine	Verv	16:19	4	B	3	3																			NA					
SR5	9/7/2019	Mid-Ebb	Fine	Verv	15:15	11	S	1	1	8.23	14.11	14.11	29.48	29.48	94.8	94.8	6.67	6.67	2.1	2.1	2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Ebb	Fine	Verv	15:15	11	S	1	2	8.23	14.11	14.11	29.48	29.48	94.7	94.8	6.66	6.67	2.1	2.1	2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	9/7/2019	Mid-Ebb	Fine	Verv	15:15	11	S	1	3																				NA				
SR5	9/7/2019	Mid-Ebb	Fine	Verv	15:15	11	M	5.5	1	8.12	17.43	17.43	28.76	28.77	85.3	85.4	6.00	6.04	2.1	2.1	2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Ebb	Fine	Verv	15:15	11	M	5.5	2	8.12	17.43	17.43	28.77	28.77	85.4	85.4	6.04	6.02	2.1	2.1	2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	9/7/2019	Mid-Ebb	Fine	Verv	15:15	11	M	5.5	3																				NA				
SR5	9/7/2019	Mid-Ebb	Fine	Verv	15:15	11	B	10	1	8.12	17.43	17.43	28.74	28.75	84.2	84.3	5.90	5.91	2.5	2.5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	9/7/2019	Mid-Ebb	Fine	Verv	15:15	11	B	10	2	8.12	17.42	17.43	28.75	28.75	84.3	84.3	5.91	5.91	2.5	2.5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	9/7/2019	Mid-Ebb	Fine	Verv	15:15	11	B	10	3																				NA				
SR12	9/7/2019	Mid-Ebb	Fine	Verv	16:43	15	S	1	1	8.15	18.04	18.05	28.86	28.86	80.5	80.5	5.62	5.62	1.4	1.4	1.4	0.12	0.12	0.010	0.010	NA	NA	NA	NA	NA	NA		
SR12	9/7/2019	Mid-Ebb	Fine	Verv	16:43	15	S	1	2	8.15	18.05	18.05	28.86	28.86	80.5	80.5	5.62	5.62	1.5	1.5	1.5	0.12	0.12	0.010	0.010	NA	NA	NA	NA	NA	NA		
SR12	9/7/2019	Mid-Ebb	Fine	Verv	16:43	15	S	1	3																				NA				
SR12	9/7/2019	Mid-Ebb	Fine	Verv	16:43	15	M	7.5	1	8.03	22.94	22.95	27.74	27.75	52.2	52.2	3.59	3.59	1.3	1.3	1.3	0.13	0.13	0.008	0.007	NA	NA	NA	NA	NA	NA		
SR12	9/7/2019	Mid-Ebb	Fine	Verv	16:43	15	M	7.5	2	8.03	22.95	22.95	27.76	27.75	52.2	52.2	3.59	3.59	1.3	1.3	1.3	0.13	0.13	0.008	0.007	NA	NA	NA	NA	NA	NA		
SR12	9/7/2019	Mid-Ebb	Fine	Verv	16:43	15	M	7.5	3																				NA				
SR12	9/7/2019	Mid-Ebb	Fine	Verv	16:43	15	B	14	1	7.99	29.72	29.73	26.18	26.18	36.0	35.8	2.57	2.56	2.1	2.0	2.1	0.14	0.14	0.007	0.007	NA	NA	NA	NA	NA	NA		
SR12	9/7/2019	Mid-Ebb	Fine	Verv	16:43	15	B	14	2	7.99	29.73	29.73	26.18	26.18	35.8	35.9	2.56	2.57	2.0	2.1	2.1	0.14	0.14	0.007	0.007	NA	NA	NA	NA	NA	NA		
SR12	9/7/2019	Mid-Ebb	Fine	Verv	16:43	15	B	14	3																				NA				
SR13	9/7/2019	Mid-Ebb	Fine	Verv	16:56	14	S	1	1	8.09	22.49	22.50	28.14	28.14	65.2	65.2	4.49	4.49	1.1	1.1	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	9/7/2019	Mid-Ebb	Fine	Verv	16:56	14	S	1	2	8.09	22.51	22.50	28.14	28.14	65.2	65.2	4.49	4.49	1.1	1.1	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	9/7/2019	Mid-Ebb	Fine	Verv	16:56	14	S	1	3																				NA				
SR13	9/7/2019	Mid-Ebb	Fine	Verv	16:56	14	M	7	1	8.04	23.91	23.92	27.69	27.71	58.8	59.0	4.20	4.22	1.2	1.2	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	9/7/2019	Mid-Ebb	Fine	Verv	16:56	14	M	7	2	8.04	23.92	23.92	27.72	27.71	59.2	59.0	4.23	4.22	1.2	1.2	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	9/7/2019	Mid-Ebb	Fine	Verv	16:56	14	M	7	3																				NA				
SR13	9/7/2019	Mid-Ebb	Fine	Verv	16:56	14	B	13	1	8.01	27.28	27.29	26.94	26.96	52.4	52.4	3.75	3.74	3.5	3.5	3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	9/7/2019	Mid-Ebb	Fine	Verv	16:56	14	B	13	2	8.01	27.29	27.29	26.98	26.96	52.5	52.4	3.72	3.74	3.6	3.6	3.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																													
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)			TIN-Nitrate (mg/L-N)			TIN-Nitrite (mg/L-N)			Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.			
C1A	9/7/2019	Mid-Ebb	Fine	Very	14:53	28	S	1	1	2	0.07			0.007	0.007	0.007	0.007	0.007	0.007	0.07	0.09	0.11	1.07	20			NA	NA	NA	2									
C1A	9/7/2019	Mid-Ebb	Fine	Very	14:53	28	S	1	2	2	0.07	0.07		0.007	0.007	0.007	0.007	0.007	0.007	0.07	1.30	0.11	1.48	29	24		NA	NA	NA	3	2								
C1A	9/7/2019	Mid-Ebb	Fine	Very	14:53	28	S	1	3		0.07			0.003	0.003	0.003	0.003	0.003	0.07	1.10	0.11	1.28				NA	NA	NA											
C1A	9/7/2019	Mid-Ebb	Fine	Very	14:53	28	M	14	1	3	0.07			0.003	0.003	0.003	0.003	0.003	0.07	1.10	0.11	1.28	16			NA	NA	NA	1										
C1A	9/7/2019	Mid-Ebb	Fine	Very	14:53	28	M	14	2	3	0.07	0.07	0.07	0.003	0.003	0.003	0.003	0.003	0.07	1.20	0.12	1.39	21	18		NA	NA	NA	2	2	2								
C1A	9/7/2019	Mid-Ebb	Fine	Very	14:53	28	M	14	3		0.07			0.003	0.003	0.003	0.003	0.003	0.07	1.10	0.12	1.29				NA	NA	NA											
C1A	9/7/2019	Mid-Ebb	Fine	Very	14:53	28	B	27	1	2	0.07			0.003	0.003	0.003	0.003	0.003	0.07	1.20	0.11	1.38	21			NA	NA	NA	2										
C1A	9/7/2019	Mid-Ebb	Fine	Very	14:53	28	B	27	2	3	0.07	0.07		0.003	0.003	0.003	0.003	0.003	0.07	1.40	0.11	1.58	13	17		NA	NA	NA	2	2									
C1A	9/7/2019	Mid-Ebb	Fine	Very	14:53	28	B	27	3		0.07			0.003	0.003	0.003	0.003	0.003	0.07	1.20	0.12	1.39				NA	NA	NA											
C2A	9/7/2019	Mid-Ebb	Fine	Very	17:14	13	S	1	1	2	0.23			0.015	0.015	0.015	0.015	0.015	0.23	0.50	0.09	0.82	10			NA	NA	NA	2										
C2A	9/7/2019	Mid-Ebb	Fine	Very	17:14	13	S	1	2	2	0.23	0.23		0.015	0.015	0.015	0.015	0.015	0.23	0.58	0.09	0.90	12	11		NA	NA	NA	3	2									
C2A	9/7/2019	Mid-Ebb	Fine	Very	17:14	13	S	1	3		0.23			0.015	0.015	0.015	0.015	0.015	0.25	0.49	0.08	0.82				NA	NA	NA											
C2A	9/7/2019	Mid-Ebb	Fine	Very	17:14	13	M	6.5	1	2	0.23			0.014	0.014	0.014	0.014	0.014	0.23	0.50	0.09	0.82	6			NA	NA	NA	3										
C2A	9/7/2019	Mid-Ebb	Fine	Very	17:14	13	M	6.5	2	3	0.23	0.23	0.23	0.014	0.014	0.014	0.014	0.014	0.23	0.58	0.09	0.91	12	8		NA	NA	NA	1	2	2								
C2A	9/7/2019	Mid-Ebb	Fine	Very	17:14	13	M	6.5	3		0.23			0.014	0.014	0.014	0.014	0.014	0.22	0.49	0.09	0.80				NA	NA	NA											
C2A	9/7/2019	Mid-Ebb	Fine	Very	17:14	13	B	12	1	3	0.23			0.012	0.012	0.012	0.012	0.012	0.23	0.51	0.09	0.83	3			NA	NA	NA	3										
C2A	9/7/2019	Mid-Ebb	Fine	Very	17:14	13	B	12	2	3	0.23	0.23	0.23	0.012	0.012	0.012	0.012	0.012	0.23	0.51	0.09	0.83	12	6		NA	NA	NA	2	3									
C2A	9/7/2019	Mid-Ebb	Fine	Very	17:14	13	B	12	3		0.23			0.012	0.012	0.012	0.012	0.012	0.21	0.55	0.09	0.85				NA	NA	NA											
G2	9/7/2019	Mid-Ebb	Fine	Very	15:52	12	S	1	1	3	NA			NA	NA	NA	NA	NA	0.08	0.67	0.10	0.85				NA	NA	NA	NA										
G2	9/7/2019	Mid-Ebb	Fine	Very	15:52	12	S	1	2	3	NA	NA	NA	NA	NA	NA	NA	NA	0.08	0.65	0.10	0.83	NA	NA		NA	NA	NA	NA										
G2	9/7/2019	Mid-Ebb	Fine	Very	15:52	12	S	1	3		NA			NA	NA	NA	NA	NA	0.09	0.66	0.10	0.85				NA	NA	NA											
G2	9/7/2019	Mid-Ebb	Fine	Very	15:52	12	M	6	1	4	NA			NA	NA	NA	NA	NA	0.08	0.76	0.10	0.94	NA	NA		NA	NA	NA	NA										
G2	9/7/2019	Mid-Ebb	Fine	Very	15:52	12	M	6	2	3	NA	NA	NA	NA	NA	NA	NA	NA	0.08	0.65	0.11	0.84	NA	NA		NA	NA	NA	NA										
G2	9/7/2019	Mid-Ebb	Fine	Very	15:52	12	M	6	3		NA			NA	NA	NA	NA	NA	0.09	0.66	0.11	0.86				NA	NA	NA											
G2	9/7/2019	Mid-Ebb	Fine	Very	15:52	12	B	11	1	3	NA			NA	NA	NA	NA	NA	0.08	0.76	0.10	0.94	NA	NA		NA	NA	NA	NA										
G2	9/7/2019	Mid-Ebb	Fine	Very	15:52	12	B	11	2	4	NA	NA	NA	NA	NA	NA	NA	NA	0.09	0.72	0.10	0.91	NA	NA		NA	NA	NA	NA										
G2	9/7/2019	Mid-Ebb	Fine	Very	15:52	12	B	11	3		NA			NA	NA	NA	NA	NA	0.08	0.67	0.10	0.85				NA	NA	NA											
SR2	9/7/2019	Mid-Ebb	Fine	Very	15:37	9	S	1	1	4	0.08			0.007	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR2	9/7/2019	Mid-Ebb	Fine	Very	15:37	9	S	1	2	3	0.08	0.08		0.007	0.007	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR2	9/7/2019	Mid-Ebb	Fine	Very	15:37	9	S	1	3		0.07			0.005	0.005	0.005	0.005	0.005	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR2	9/7/2019	Mid-Ebb	Fine	Very	15:37	9	M	4.5	1	3	0.07			0.005	0.005	0.005	0.005	0.005	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR2	9/7/2019	Mid-Ebb	Fine	Very	15:37	9	M	4.5	2	3	0.07	0.07	0.07	0.005	0.005	0.005	0.005	0.005	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR2	9/7/2019	Mid-Ebb	Fine	Very	15:37	9	M	4.5	3		0.08			0.005	0.005	0.005	0.005	0.005	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR2	9/7/2019	Mid-Ebb	Fine	Very	15:37	9	B	8	1	4	0.08			0.005	0.005	0.005	0.005	0.005	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR2	9/7/2019	Mid-Ebb	Fine	Very	15:37	9	B	8	2	3	0.08	0.08		0.005	0.005	0.005	0.005	0.005	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR2	9/7/2019	Mid-Ebb	Fine	Very	15:37	9	B	8	3		0.08			0.005	0.005	0.005	0.005	0.005	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR3	9/7/2019	Mid-Ebb	Fine	Very	16:06	8	S	1	1	3	0.07			0.006	0.006	0.006	0.006	0.006	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR3	9/7/2019	Mid-Ebb	Fine	Very	16:06	8	S	1	2	3	0.07	0.07		0.006	0.006	0.006	0.006	0.006	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR3	9/7/2019	Mid-Ebb	Fine	Very	16:06	8	S	1	3		0.07			0.006	0.006	0.006	0.006	0.006	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR3	9/7/2019	Mid-Ebb	Fine	Very	16:06	8	M	4	1	2	0.07			0.004	0.004	0.004	0.004	0.004	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR3	9/7/2019	Mid-Ebb	Fine	Very	16:06	8	M	4	2	3	0.09	0.08	0.08	0.005	0.005	0.005	0.005	0.005	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR3	9/7/2019	Mid-Ebb	Fine	Very	16:06	8	M	4	3		0.07			0.005	0.005	0.005	0.005	0.005	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR3	9/7/2019	Mid-Ebb	Fine	Very	16:06	8	B	7	1	3	0.08			0.005	0.005	0.005	0.005	0.005	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR3	9/7/2019	Mid-Ebb	Fine	Very	16:06	8	B	7	2	3	0.07	0.08		0.004	0.004	0.004	0.004	0.004	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										
SR3	9/7/2019	Mid-Ebb	Fine	Very	16:06	8	B	7	3		0.07			0.004	0.004	0.004	0.004	0.004	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA										

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	9/7/2019	Mid-Ebb	Fine	Very	16:19	4	S	1	1	3	0.07	0.07	0.07	0.006	0.006	0.006	NA	NA	NA	NA	NA	1100	1700	1367	NA	NA	NA	1	1	1			
SR4	9/7/2019	Mid-Ebb	Fine	Very	16:19	4	S	1	2	2	0.07	0.07	0.07	0.006	0.006	0.006	NA	NA	NA	NA	NA	1100	1700	1367	NA	NA	NA	1	1	1			
SR4	9/7/2019	Mid-Ebb	Fine	Very	16:19	4	S	1	3	3	0.07	0.07	0.07	0.006	0.006	0.006	NA	NA	NA	NA	NA	1100	1700	1367	NA	NA	NA	1	1	1			
SR4	9/7/2019	Mid-Ebb	Fine	Very	16:19	4	M			1							NA	NA	NA	NA	NA				1303	NA	NA						
SR4	9/7/2019	Mid-Ebb	Fine	Very	16:19	4	M			2							NA	NA	NA	NA	NA				1303	NA	NA						
SR4	9/7/2019	Mid-Ebb	Fine	Very	16:19	4	M			3							NA	NA	NA	NA	NA				1303	NA	NA						
SR4	9/7/2019	Mid-Ebb	Fine	Very	16:19	4	B	3	1	2	0.08	0.08	0.08	0.006	0.006	0.006	NA	NA	NA	NA	NA	1400	1100	1241	NA	NA	NA	1	1	1			
SR4	9/7/2019	Mid-Ebb	Fine	Very	16:19	4	B	3	2	2	0.08	0.08	0.08	0.006	0.006	0.006	NA	NA	NA	NA	NA	1400	1100	1241	NA	NA	NA	1	1	1			
SR4	9/7/2019	Mid-Ebb	Fine	Very	16:19	4	B	3	3	3	0.08	0.08	0.08	0.006	0.006	0.006	NA	NA	NA	NA	NA	1400	1100	1241	NA	NA	NA	1	1	1			
SR5	9/7/2019	Mid-Ebb	Fine	Very	15:15	11	S	1	1	4	NA	NA	NA	NA	NA	NA	0.06	1.20	0.11	1.37	1.44	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Ebb	Fine	Very	15:15	11	S	1	2	4	NA	NA	NA	NA	NA	NA	0.06	1.30	0.11	1.47	1.29	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Ebb	Fine	Very	15:15	11	S	1	3	4	NA	NA	NA	NA	NA	NA	0.06	1.30	0.11	1.47	1.30	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Ebb	Fine	Very	15:15	11	M	5.5	1	4	NA	NA	NA	NA	NA	NA	0.06	0.96	0.11	1.13	1.34	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Ebb	Fine	Very	15:15	11	M	5.5	2	4	NA	NA	NA	NA	NA	NA	0.06	1.10	0.11	1.27	1.30	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Ebb	Fine	Very	15:15	11	M	5.5	3	4	NA	NA	NA	NA	NA	NA	0.06	1.30	0.11	1.47	1.30	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Ebb	Fine	Very	15:15	11	B	10	1	4	NA	NA	NA	NA	NA	NA	0.06	1.10	0.11	1.27	1.30	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Ebb	Fine	Very	15:15	11	B	10	2	4	NA	NA	NA	NA	NA	NA	0.06	1.20	0.11	1.37	1.30	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	9/7/2019	Mid-Ebb	Fine	Very	15:15	11	B	10	3	4	NA	NA	NA	NA	NA	NA	0.05	1.10	0.11	1.26	1.30	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR12	9/7/2019	Mid-Ebb	Fine	Very	16:43	15	S	1	1	2	0.10	0.11	0.10	0.008	0.009	0.009	NA	NA	NA	NA	NA	290	350	319	NA	NA	NA	1	1	1			
SR12	9/7/2019	Mid-Ebb	Fine	Very	16:43	15	S	1	2	2	0.11	0.11	0.11	0.008	0.009	0.009	NA	NA	NA	NA	NA	290	350	319	NA	NA	NA	1	1	1			
SR12	9/7/2019	Mid-Ebb	Fine	Very	16:43	15	S	1	3	2	0.11	0.11	0.11	0.008	0.009	0.009	NA	NA	NA	NA	NA	290	350	319	NA	NA	NA	1	1	1			
SR12	9/7/2019	Mid-Ebb	Fine	Very	16:43	15	M	7.5	1	2	0.09	0.10	0.10	0.005	0.006	0.006	NA	NA	NA	NA	NA	410	500	453	415	NA	NA	NA	1	1	1		
SR12	9/7/2019	Mid-Ebb	Fine	Very	16:43	15	M	7.5	2	2	0.09	0.10	0.10	0.005	0.006	0.006	NA	NA	NA	NA	NA	410	500	453	415	NA	NA	NA	1	1	1		
SR12	9/7/2019	Mid-Ebb	Fine	Very	16:43	15	M	7.5	3	2	0.09	0.10	0.10	0.005	0.006	0.006	NA	NA	NA	NA	NA	410	500	453	415	NA	NA	NA	1	1	1		
SR12	9/7/2019	Mid-Ebb	Fine	Very	16:43	15	B	14	1	2	0.09	0.10	0.10	0.004	0.005	0.005	NA	NA	NA	NA	NA	460	530	494	NA	NA	NA	1	1	1			
SR12	9/7/2019	Mid-Ebb	Fine	Very	16:43	15	B	14	2	2	0.10	0.10	0.10	0.004	0.005	0.005	NA	NA	NA	NA	NA	460	530	494	NA	NA	NA	1	1	1			
SR12	9/7/2019	Mid-Ebb	Fine	Very	16:43	15	B	14	3	2	0.10	0.10	0.10	0.004	0.005	0.005	NA	NA	NA	NA	NA	460	530	494	NA	NA	NA	1	1	1			
SR13	9/7/2019	Mid-Ebb	Fine	Very	16:56	14	S	1	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Ebb	Fine	Very	16:56	14	S	1	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Ebb	Fine	Very	16:56	14	S	1	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Ebb	Fine	Very	16:56	14	M	7	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Ebb	Fine	Very	16:56	14	M	7	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Ebb	Fine	Very	16:56	14	M	7	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Ebb	Fine	Very	16:56	14	B	13	1	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Ebb	Fine	Very	16:56	14	B	13	2	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	9/7/2019	Mid-Ebb	Fine	Very	16:56	14	B	13	3	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.





Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																											
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)					
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.		
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	S	1	1	8.10	17.73	17.75	28.43	28.45	75.4	75.3	5.24	5.23	5.24	2.3	2.1	2.2	0.13	0.13	0.13	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA	NA		
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	S	1	2	8.11	17.76	17.75	28.46	28.45	75.2	75.3	5.23	5.24	5.24	2.1	2.1	2.2	0.13	0.13	0.13	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA	NA		
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	S	1	3																												
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	M		1		NA		NA		NA		NA		NA		NA		2.3		NA	0.13		NA	0.010		NA	0.010	NA	NA	NA	NA	
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	M		3																												
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	B	3	1	8.11	17.80		28.40		71.6		4.97		2.5																		
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	B	3	2	8.12	17.82	17.81	28.41	28.41	71.9	71.8	4.99	4.98	4.98	2.4	2.5		0.13			0.010											
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	B	3	3																												
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	S	1	1	8.11	18.57		28.00		90.3		6.35		2.0																		
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	S	1	2	8.12	18.54	18.56	27.99	28.00	90.0	90.2	6.33	6.34	1.8	1.9		NA	NA		NA	NA	NA	NA	0.15	0.80	0.12	1.07			1.09		
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	S	1	3																												
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	M	5.5	1	8.14	18.73		27.90		83.6		5.87		2.6																		
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	M	5.5	2	8.13	18.70	18.72	27.91	27.91	83.8	83.7	5.88	5.88	2.5	2.6		NA	NA		NA	NA	NA	NA	0.15	0.82	0.12	1.09			1.29		
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	M	5.5	3																												
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	B	10	1	8.16	18.92		27.82		80.2		5.63		3.3																		
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	B	10	2	8.15	18.95	18.94	27.81	27.82	79.9	80.1	5.61	5.62	3.1	3.2		NA	NA		NA	NA	NA	NA	0.16	0.83	0.13	1.12			1.29		
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	B	10	3																												
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	B	10	3																												
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	S	1	1	8.12	21.37		27.89		80.3		5.57		1.1																		
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	S	1	2	8.13	21.40	21.39	27.87	27.88	80.6	80.5	5.59	5.58	0.9	1.0		0.10	0.11		0.007	0.008	0.008	NA	NA	NA	NA	NA	NA	NA	NA		
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	S	1	3																												
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	M	7.5	1	8.13	21.69		27.79		74.6		5.18		1.7																		
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	M	7.5	2	8.13	21.72	21.71	27.79	27.79	74.8	74.7	5.19	5.19	1.6	1.7		0.23	0.21		0.017	0.016	0.016	NA	NA	NA	NA	NA	NA	NA	NA		
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	M	7.5	3																												
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	B	14	1	8.14	21.96		27.72		70.3		4.88		2.4																		
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	B	14	2	8.15	21.99	21.98	27.71	27.72	70.1	70.2	4.86	4.87	2.3	2.4		0.25	0.26		0.019	0.020	0.019	NA	NA	NA	NA	NA	NA	NA	NA		
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	B	14	3																												
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	S	1	1	8.10	22.98		27.69		88.4		6.18		1.3																		
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	S	1	2	8.09	22.96	22.97	27.68	27.69	88.1	88.3	6.16	6.17	1.5	1.4		NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	S	1	3																												
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	M	7	1	8.12	23.13		27.60		83.2		5.81		1.9																		
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	M	7	2	8.11	23.15	23.14	27.59	27.60	83.5	83.4	5.83	5.82	2.1	2.0		NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	M	7	3																												
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	B	13	1	8.13	23.40		27.52		80.0		5.59		2.6																		
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	B	13	2	8.13	23.38	23.39	27.53	27.53	78.8	79.4	5.57	5.58	2.5	2.6		NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	B	13	3																												

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
C1A	11/7/2019	Mid-Flood	Cloudy	Moderate	11:15	28	S	1	1	3	0.25			0.018	0.018		0.25	0.37	0.07	0.69			6700			NA	NA	NA	<1				
C1A	11/7/2019	Mid-Flood	Cloudy	Moderate	11:15	28	S	1	2	3	0.25	0.25		0.018	0.018		0.25	0.38	0.07	0.70	0.69		7600	7136		NA	NA	NA	<1	1			
C1A	11/7/2019	Mid-Flood	Cloudy	Moderate	11:15	28	S	1	3								0.25	0.37	0.07	0.69						NA	NA	NA					
C1A	11/7/2019	Mid-Flood	Cloudy	Moderate	11:15	28	M	14	1	3	0.26			0.019			0.26	0.38	0.07	0.71			8000			NA	NA	NA	<1				
C1A	11/7/2019	Mid-Flood	Cloudy	Moderate	11:15	28	M	14	2	3	0.25	0.26	0.25	0.019	0.019	0.018	0.25	0.42	0.07	0.74	0.72	0.71	9200	8579	7580	NA	NA	NA	1	1	1		
C1A	11/7/2019	Mid-Flood	Cloudy	Moderate	11:15	28	M	14	3								0.26	0.38	0.07	0.71						NA	NA	NA					
C1A	11/7/2019	Mid-Flood	Cloudy	Moderate	11:15	28	B	27	1	3	0.25			0.018			0.25	0.38	0.07	0.70			6100			NA	NA	NA	<1				
C1A	11/7/2019	Mid-Flood	Cloudy	Moderate	11:15	28	B	27	2	3	0.26	0.26		0.019	0.018		0.26	0.38	0.07	0.71	0.72		8300	7115		NA	NA	NA	<1	1			
C1A	11/7/2019	Mid-Flood	Cloudy	Moderate	11:15	28	B	27	3								0.25	0.42	0.07	0.74						NA	NA	NA					
C2A	11/7/2019	Mid-Flood	Cloudy	Moderate	13:56	13	S	1	1	2	0.25			0.015	0.015		0.25	0.38	0.07	0.70	0.71		5800			NA	NA	NA	1				
C2A	11/7/2019	Mid-Flood	Cloudy	Moderate	13:56	13	S	1	2	2	0.23	0.24		0.014	0.015		0.23	0.39	0.07	0.69	0.71		5200	5492		NA	NA	NA	<1	1			
C2A	11/7/2019	Mid-Flood	Cloudy	Moderate	13:56	13	S	1	3								0.23	0.43	0.07	0.73						NA	NA	NA					
C2A	11/7/2019	Mid-Flood	Cloudy	Moderate	13:56	13	M	6.5	1	3	0.22			0.014			0.22	0.42	0.07	0.71			7400			NA	NA	NA	<1				
C2A	11/7/2019	Mid-Flood	Cloudy	Moderate	13:56	13	M	6.5	2	3	0.27	0.25	0.24	0.017	0.015	0.015	0.27	0.38	0.07	0.72	0.71	0.71	6100	6719	5903	NA	NA	NA	<1	1	1		
C2A	11/7/2019	Mid-Flood	Cloudy	Moderate	13:56	13	M	6.5	3								0.26	0.38	0.07	0.71						NA	NA	NA					
C2A	11/7/2019	Mid-Flood	Cloudy	Moderate	13:56	13	B	12	1	3	0.23			0.014			0.23	0.40	0.07	0.70	0.70		4200			NA	NA	NA	<1				
C2A	11/7/2019	Mid-Flood	Cloudy	Moderate	13:56	13	B	12	2	3	0.23	0.23		0.014	0.014		0.23	0.43	0.07	0.73	0.70		7400	5575		NA	NA	NA	<1	1			
C2A	11/7/2019	Mid-Flood	Cloudy	Moderate	13:56	13	B	12	3								0.22	0.39	0.07	0.68						NA	NA	NA					
G2	11/7/2019	Mid-Flood	Cloudy	Moderate	12:12	12	S	1	1	3	NA			NA	NA		0.14	0.65	0.10	0.89	0.89		NA	NA		NA	NA	NA	NA	NA			
G2	11/7/2019	Mid-Flood	Cloudy	Moderate	12:12	12	S	1	2	2	NA	NA		NA	NA		0.14	0.67	0.10	0.91			NA	NA		NA	NA	NA	NA	NA			
G2	11/7/2019	Mid-Flood	Cloudy	Moderate	12:12	12	S	1	3								0.12	0.64	0.10	0.86						NA	NA	NA	NA	NA			
G2	11/7/2019	Mid-Flood	Cloudy	Moderate	12:12	12	M	6	1	2	NA			NA	NA		0.13	0.70	0.10	0.93	0.90	0.90	NA	NA	NA	NA	NA	NA	NA	NA			
G2	11/7/2019	Mid-Flood	Cloudy	Moderate	12:12	12	M	6	2	2	NA	NA		NA	NA		0.13	0.68	0.10	0.91			NA	NA	NA	NA	NA	NA	NA	NA			
G2	11/7/2019	Mid-Flood	Cloudy	Moderate	12:12	12	M	6	3								0.12	0.64	0.10	0.86						NA	NA	NA	NA	NA			
G2	11/7/2019	Mid-Flood	Cloudy	Moderate	12:12	12	B	11	1	3	NA			NA	NA		0.12	0.65	0.10	0.87	0.90		NA	NA		NA	NA	NA	NA	NA			
G2	11/7/2019	Mid-Flood	Cloudy	Moderate	12:12	12	B	11	2	3	NA	NA		NA	NA		0.13	0.67	0.11	0.91			NA	NA		NA	NA	NA	NA	NA			
G2	11/7/2019	Mid-Flood	Cloudy	Moderate	12:12	12	B	11	3								0.14	0.69	0.10	0.93						NA	NA	NA	NA	NA			
SR2	11/7/2019	Mid-Flood	Cloudy	Moderate	11:54	9	S	1	1	3	0.15			0.010			NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA			
SR2	11/7/2019	Mid-Flood	Cloudy	Moderate	11:54	9	S	1	2	3	0.16	0.16		0.011	0.011		NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA			
SR2	11/7/2019	Mid-Flood	Cloudy	Moderate	11:54	9	S	1	3								NA	NA	NA	NA	NA					NA	NA	NA	NA	NA			
SR2	11/7/2019	Mid-Flood	Cloudy	Moderate	11:54	9	M	4.5	1	4	0.14			0.010			NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA			
SR2	11/7/2019	Mid-Flood	Cloudy	Moderate	11:54	9	M	4.5	2	3	0.15	0.15	0.15	0.010	0.010	0.010	NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA			
SR2	11/7/2019	Mid-Flood	Cloudy	Moderate	11:54	9	M	4.5	3								NA	NA	NA	NA	NA					NA	NA	NA	NA	NA			
SR2	11/7/2019	Mid-Flood	Cloudy	Moderate	11:54	9	B	8	1	4	0.14			0.010			NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA			
SR2	11/7/2019	Mid-Flood	Cloudy	Moderate	11:54	9	B	8	2	4	0.15	0.15		0.011	0.010		NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA			
SR2	11/7/2019	Mid-Flood	Cloudy	Moderate	11:54	9	B	8	3								NA	NA	NA	NA	NA					NA	NA	NA	NA	NA			
SR3	11/7/2019	Mid-Flood	Cloudy	Moderate	12:34	8	S	1	1	3	0.13			0.010			NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA			
SR3	11/7/2019	Mid-Flood	Cloudy	Moderate	12:34	8	S	1	2	3	0.13	0.13		0.010	0.010		NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA			
SR3	11/7/2019	Mid-Flood	Cloudy	Moderate	12:34	8	S	1	3								NA	NA	NA	NA	NA					NA	NA	NA	NA	NA			
SR3	11/7/2019	Mid-Flood	Cloudy	Moderate	12:34	8	M	4	1	3	0.09			0.007			NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA			
SR3	11/7/2019	Mid-Flood	Cloudy	Moderate	12:34	8	M	4	2	3	0.12	0.11	0.12	0.009	0.008	0.009	NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA			
SR3	11/7/2019	Mid-Flood	Cloudy	Moderate	12:34	8	M	4	3								NA	NA	NA	NA	NA					NA	NA	NA	NA	NA			
SR3	11/7/2019	Mid-Flood	Cloudy	Moderate	12:34	8	B	7	1	3	0.14			0.011			NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA			
SR3	11/7/2019	Mid-Flood	Cloudy	Moderate	12:34	8	B	7	2	3	0.10	0.12		0.008	0.009		NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA			
SR3	11/7/2019	Mid-Flood	Cloudy	Moderate	12:34	8	B	7	3								NA	NA	NA	NA	NA					NA	NA	NA	NA	NA			

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	S	1	1	2	0.14			0.011			NA	NA	NA	NA	NA	3100			NA	NA	NA	<1					
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	S	1	2	2	0.12	0.13		0.009	0.010		NA	NA	NA	NA	NA	3900	3477		NA	NA	NA	<1	1				
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	S	1	3								NA	NA	NA	NA	NA				NA	NA	NA						
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	M			1							NA	NA	NA	NA	NA				NA	NA	NA						
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	M			2							NA	NA	NA	NA	NA				NA	NA	NA						
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	M			3							NA	NA	NA	NA	NA				NA	NA	NA						
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	B	3	1	2	0.09			0.007			NA	NA	NA	NA	NA	4200			NA	NA	NA	1					
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	B	3	2	3	0.11	0.10		0.008	0.008		NA	NA	NA	NA	NA	3500	3834		NA	NA	NA	<1	1				
SR4	11/7/2019	Mid-Flood	Cloudy	Moderate	12:56	4	B	3	3								NA	NA	NA	NA	NA				NA	NA	NA						
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	S	1	1	3	NA	NA		NA	NA		0.10	1.10	0.11	1.31		NA	NA		NA	NA	NA	NA	NA	NA			
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	S	1	2	3	NA	NA		NA	NA		0.08	1.20	0.11	1.39	1.39	NA	NA		NA	NA	NA	NA	NA	NA			
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	S	1	3								0.16	1.20	0.10	1.46		NA	NA		NA	NA	NA	NA	NA	NA			
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	M	5.5	1	3	NA	NA		NA	NA		0.17	1.10	0.10	1.37		NA	NA		NA	NA	NA	NA	NA	NA			
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	M	5.5	2	3	NA	NA	NA	NA	NA	NA	0.17	1.10	0.10	1.37	1.34	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	M	5.5	3								0.08	1.10	0.11	1.29	1.30	NA	NA		NA	NA	NA	NA	NA	NA			
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	B	10	1	3	NA	NA		NA	NA		0.15	0.95	0.10	1.20		NA	NA		NA	NA	NA	NA	NA	NA			
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	B	10	2	3	NA	NA	NA	NA	NA	NA	0.15	0.98	0.11	1.24	1.16	NA	NA		NA	NA	NA	NA	NA	NA			
SR5	11/7/2019	Mid-Flood	Cloudy	Moderate	11:35	11	B	10	3								0.14	0.78	0.11	1.03		NA	NA		NA	NA	NA	NA	NA	NA			
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	S	1	1	3	0.16			0.012			NA	NA	NA	NA	NA	6100			NA	NA	NA	1					
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	S	1	2	2	0.16	0.16		0.012	0.012		NA	NA	NA	NA	NA	5500	5792		NA	NA	NA	<1	1				
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	S	1	3								NA	NA	NA	NA	NA				NA	NA	NA						
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	M	7.5	1	2	0.16			0.012			NA	NA	NA	NA	NA	7300			NA	NA	NA	1					
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	M	7.5	2	3	0.18	0.17	0.17	0.013	0.013	0.012	NA	NA	NA	NA	NA	6200	6728	6432	NA	NA	NA	<1	1	1			
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	M	7.5	3								NA	NA	NA	NA	NA				NA	NA	NA						
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	B	14	1	3	0.15			0.011			NA	NA	NA	NA	NA	6300			NA	NA	NA	1					
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	B	14	2	3	0.18	0.17		0.014	0.013		NA	NA	NA	NA	NA	7400	6828		NA	NA	NA	<1	1				
SR12	11/7/2019	Mid-Flood	Cloudy	Moderate	13:10	15	B	14	3								NA	NA	NA	NA	NA				NA	NA	NA						
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	S	1	1	4	NA	NA		NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA			
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	S	1	2	4	NA	NA		NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA			
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	S	1	3								NA	NA	NA	NA	NA				NA	NA	NA						
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	M	7	1	4	NA	NA		NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA			
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	M	7	2	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA			
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	M	7	3								NA	NA	NA	NA	NA				NA	NA	NA						
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	B	13	1	3	NA	NA		NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA			
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	B	13	2	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA			
SR13	11/7/2019	Mid-Flood	Cloudy	Moderate	13:32	14	B	13	3								NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA			

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																								
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)		
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:05	4	S	1	1	8.12	8.12	17.10	17.14	17.12	28.21	28.21	75.7	75.8	5.35	5.36	2.0	2.2	2.1	0.13	0.13	0.13	0.010	0.010	0.010	NA	NA	NA	NA	NA
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:05	4	S	1	3	8.11	8.12	17.14	17.12	28.20	28.21	75.9	75.8	5.37	5.36	2.2	2.2	2.1	0.13	0.13	0.13	0.010	0.010	0.010	NA	NA	NA	NA	NA	
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:05	4	S	1	3	8.11	8.12	17.14	17.12	28.20	28.21	75.9	75.8	5.37	5.36	2.2	2.2	2.1	0.13	0.13	0.13	0.010	0.010	0.010	NA	NA	NA	NA	NA	
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:05	4	M		1			NA		NA		NA		NA		NA		NA		NA		0.13	0.010	0.010	NA	NA	NA	NA	NA	
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:05	4	M		3			NA		NA		NA		NA		NA		NA		NA		0.13	0.010	0.010	NA	NA	NA	NA	NA	
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:05	4	B	3	1	8.13	8.13	17.26	17.25	28.11	28.12	71.3	71.5	5.24	5.15	2.7	2.6	2.7	0.13	0.13	0.13	0.010	0.010	0.010	NA	NA	NA	NA	NA	
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:05	4	B	3	2	8.12	8.13	17.23	17.25	28.12	28.12	71.6	71.5	5.06	5.15	2.6	2.6	2.7	0.13	0.13	0.13	0.010	0.010	0.010	NA	NA	NA	NA	NA	
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	B	10	3																	0.13	0.010	0.010	NA	NA	NA	NA	NA	
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	S	1	1	8.12	8.13	21.04	21.06	28.44	28.43	89.3	89.2	6.36	6.35	1.6	1.8	1.7	NA	NA	NA	NA	NA	NA	0.13	0.99	0.10	1.22	1.23	
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	S	1	2	8.13	8.13	21.07	21.06	28.41	28.43	89.0	89.2	6.34	6.35	1.8	1.8	1.7	NA	NA	NA	NA	NA	NA	0.15	0.99	0.10	1.24	1.23	
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	S	1	3																	0.13	1.00	0.11	1.24	1.23				
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	M	5.5	1	8.13	8.13	21.39	21.41	28.32	28.32	84.6	84.7	6.03	6.04	2.4	2.5	2.5	NA	NA	NA	NA	NA	0.16	1.08	0.10	1.34	1.27		
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	M	5.5	2	8.13	8.13	21.42	21.41	28.31	28.32	84.8	84.7	6.04	6.04	2.5	2.5	2.5	NA	NA	NA	NA	NA	0.16	1.09	0.10	1.35	1.26		
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	M	5.5	3																	0.17	0.80	0.11	1.08	1.27				
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	B	10	1	8.14	8.15	21.70	21.69	28.27	28.27	79.5	79.8	5.67	5.69	3.2	3.0	3.1	NA	NA	NA	NA	NA	0.18	0.95	0.11	1.24	1.32		
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	B	10	2	8.15	8.15	21.67	21.69	28.26	28.27	80.0	79.8	5.71	5.69	3.0	3.0	3.1	NA	NA	NA	NA	NA	0.18	1.11	0.16	1.45	1.32		
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	B	10	3																	0.18	0.95	0.15	1.28	1.32				
SR12	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:45	15	S	1	1	8.08	8.09	20.97	20.96	27.99	28.00	78.2	78.1	5.49	5.48	1.0	0.8	0.9	0.08	0.08	0.08	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
SR12	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:45	15	S	1	2	8.09	8.09	20.94	20.96	28.00	28.00	78.0	78.1	5.47	5.48	0.8	0.8	0.9	0.08	0.08	0.08	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
SR12	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:45	15	S	1	3																									
SR12	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:45	15	M	7.5	1	8.09	8.09	21.08	21.10	27.91	27.91	71.8	72.0	5.04	5.05	1.7	1.9	1.8	0.15	0.14	0.15	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
SR12	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:45	15	M	7.5	2	8.08	8.09	21.12	21.10	27.90	27.91	72.1	72.0	5.06	5.05	1.9	1.9	1.8	0.14	0.14	0.15	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
SR12	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:45	15	M	7.5	3																									
SR12	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:45	15	B	14	1	8.10	8.10	21.36	21.37	27.83	27.83	66.6	66.7	4.61	4.62	2.6	2.6	2.5	0.20	0.25	0.23	0.014	0.017	0.016	0.014	0.017	0.016	0.014	0.017	0.016
SR12	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:45	15	B	14	3																									
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	S	1	1	8.04	8.05	24.03	24.04	27.22	27.22	88.0	88.1	6.10	6.11	1.4	1.6	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	S	1	2	8.05	8.05	24.05	24.04	27.22	27.22	88.2	88.1	6.11	6.11	1.6	1.6	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	S	1	3																									
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	M	7	1	8.06	8.06	24.32	24.31	27.10	27.11	84.3	84.2	5.84	5.83	2.1	2.3	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	M	7	2	8.05	8.06	24.30	24.31	27.11	27.11	84.0	84.2	5.82	5.83	2.3	2.3	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	M	7	3																									
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	B	13	1	8.07	8.07	24.61	24.60	27.03	27.04	80.1	80.0	5.56	5.55	2.9	3.0	3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	B	13	2	8.06	8.07	24.58	24.60	27.04	27.04	79.9	80.0	5.54	5.55	3.0	3.0	3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																								
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			Total Inorganic Nitrogen (mg/L-N)				E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)					
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
C1A	11/7/2019	Mid-Ebb	Cloudy	Moderate	10'46	28	S	1	1	3	0.25			0.017			0.25	0.35	0.07	0.67						NA	NA	NA	2					
C1A	11/7/2019	Mid-Ebb	Cloudy	Moderate	10'46	28	S	1	2	2	0.28	0.27		0.019	0.018		0.28	0.37	0.07	0.72	0.71		6600	5745		NA	NA	NA	<1	1				
C1A	11/7/2019	Mid-Ebb	Cloudy	Moderate	10'46	28	S	1	3								0.28	0.38	0.07	0.73														
C1A	11/7/2019	Mid-Ebb	Cloudy	Moderate	10'46	28	M	14	1	2	0.26			0.019			0.26	0.42	0.07	0.75	0.72		7300			NA	NA	NA	1					
C1A	11/7/2019	Mid-Ebb	Cloudy	Moderate	10'46	28	M	14	2	3	0.26	0.26	0.26	0.019	0.019	0.019	0.26	0.37	0.07	0.70	0.72		7900	7594	6781	NA	NA	NA	1		1			
C1A	11/7/2019	Mid-Ebb	Cloudy	Moderate	10'46	28	M	14	3								0.25	0.38	0.07	0.70														
C1A	11/7/2019	Mid-Ebb	Cloudy	Moderate	10'46	28	B	27	1	2	0.27			0.020			0.27	0.42	0.07	0.76	0.73		7000			NA	NA	NA	1					
C1A	11/7/2019	Mid-Ebb	Cloudy	Moderate	10'46	28	B	27	2	2	0.25	0.26		0.019	0.019		0.25	0.40	0.07	0.72	0.73		7300	7148		NA	NA	NA	1		1			
C1A	11/7/2019	Mid-Ebb	Cloudy	Moderate	10'46	28	B	27	3								0.26	0.37	0.07	0.70														
C2A	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:00	13	S	1	1	3	0.22			0.011			0.22	0.43	0.07	0.72	0.70		7400			NA	NA	NA	<1					
C2A	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:00	13	S	1	2	3	0.23	0.23		0.011	0.011		0.23	0.42	0.07	0.72	0.70		4700	5897		NA	NA	NA	<1	1				
C2A	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:00	13	S	1	3								0.22	0.38	0.07	0.67														
C2A	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:00	13	M	6.5	1	4	0.22			0.011			0.22	0.39	0.07	0.68	0.70		6600			NA	NA	NA	<1					
C2A	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:00	13	M	6.5	2	4	0.23	0.23	0.23	0.012	0.011	0.012	0.23	0.43	0.07	0.73	0.70		4500	5450	5662	NA	NA	NA	<1	1	1			
C2A	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:00	13	M	6.5	3								0.25	0.37	0.07	0.69														
C2A	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:00	13	B	12	1	3	0.26			0.014			0.26	0.38	0.07	0.71	0.75		5800			NA	NA	NA	<1					
C2A	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:00	13	B	12	2	3	0.23	0.25		0.012	0.013		0.23	0.43	0.07	0.73	0.75		5500	5648		NA	NA	NA	<1	1				
C2A	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:00	13	B	12	3								0.35	0.40	0.07	0.82														
G2	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:42	12	S	1	1	3	NA	NA		NA	NA		0.14	0.67	0.10	0.91	0.90		NA	NA		NA	NA	NA	NA	NA				
G2	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:42	12	S	1	2	3	NA	NA		NA	NA		0.13	0.67	0.11	0.91	0.90		NA	NA		NA	NA	NA	NA	NA				
G2	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:42	12	S	1	3								0.14	0.64	0.11	0.89														
G2	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:42	12	M	6	1	3	NA	NA		NA	NA		0.14	0.70	0.10	0.94	0.91		NA	NA		NA	NA	NA	NA	NA				
G2	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:42	12	M	6	2	3	NA	NA		NA	NA		0.14	0.65	0.10	0.89	0.91	0.90	NA	NA		NA	NA	NA	NA	NA				
G2	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:42	12	M	6	3								0.14	0.64	0.11	0.89														
G2	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:42	12	B	11	1	3	NA	NA		NA	NA		0.13	0.64	0.11	0.88	0.90		NA	NA		NA	NA	NA	NA	NA				
G2	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:42	12	B	11	2	4	NA	NA		NA	NA		0.13	0.65	0.11	0.89	0.90		NA	NA		NA	NA	NA	NA	NA				
G2	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:42	12	B	11	3								0.15	0.69	0.10	0.94														
SR2	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:00	9	S	1	1	4	0.15			0.012			NA	NA	NA	NA	NA		NA	NA		NA	NA	NA	NA	NA				
SR2	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:00	9	S	1	2	5	0.15	0.15		0.012	0.012		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				
SR2	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:00	9	S	1	3								NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				
SR2	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:00	9	M	4.5	1	4	0.16			0.013			NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				
SR2	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:00	9	M	4.5	2	5	0.15	0.16	0.16	0.013	0.013	0.013	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				
SR2	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:00	9	M	4.5	3								NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				
SR2	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:00	9	B	8	1	4	0.19			0.016			NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				
SR2	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:00	9	B	8	2	3	0.16	0.18		0.013	0.015		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				
SR2	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:00	9	B	8	3								NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				
SR3	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:22	8	S	1	1	3	0.14			0.010			NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				
SR3	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:22	8	S	1	2	3	0.14	0.14		0.010	0.010		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				
SR3	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:22	8	S	1	3								NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				
SR3	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:22	8	M	4	1	3	0.16			0.012			NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				
SR3	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:22	8	M	4	2	3	0.11	0.14	0.12	0.008	0.010	0.009	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				
SR3	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:22	8	M	4	3								NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				
SR3	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:22	8	B	7	1	3	0.09			0.007			NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				
SR3	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:22	8	B	7	2	3	0.10	0.10		0.008	0.007		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				
SR3	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:22	8	B	7	3								NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA				

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:05	4	S	1	1	4	0.11	0.12	0.008	0.009	0.009	NA	NA	NA	NA	NA	4200	3834	3931	NA	NA	NA	2	2	2				
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:05	4	S	1	2	3	0.13	0.12	0.010	0.009	0.009	NA	NA	NA	NA	NA	3500	3834	3931	NA	NA	NA	2	2	2				
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:05	4	S	1	3	3	0.11	0.12	0.008	0.009	0.009	NA	NA	NA	NA	NA	3500	3834	3931	NA	NA	NA	2	2	2				
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:05	4	M	1	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:05	4	M	2	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:05	4	M	3	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:05	4	B	3	2	2	0.11	0.12	0.008	0.009	0.009	NA	NA	NA	NA	NA	5600	4030	NA	NA	NA	NA	<1	<1	1				
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	9:05	4	B	3	2	2	0.13	0.12	0.010	0.009	0.009	NA	NA	NA	NA	NA	2900	4030	NA	NA	NA	NA	<1	<1	1				
SR4	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	B	10	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	S	1	1	4	NA	NA	NA	NA	NA	0.20	1.00	0.10	1.30	1.21	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	S	1	2	3	NA	NA	NA	NA	NA	0.10	0.90	0.11	1.11	1.23	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	S	1	3	3	NA	NA	NA	NA	NA	0.10	1.00	0.11	1.21	1.23	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	M	5.5	1	4	NA	NA	NA	NA	NA	0.15	1.10	0.11	1.36	1.23	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	M	5.5	2	3	NA	NA	NA	NA	NA	0.09	1.00	0.11	1.20	1.23	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	M	5.5	3	3	NA	NA	NA	NA	NA	0.17	0.82	0.10	1.09	1.23	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	B	10	1	3	NA	NA	NA	NA	NA	0.21	0.92	0.11	1.24	1.26	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	B	10	2	3	NA	NA	NA	NA	NA	0.08	1.10	0.11	1.29	1.26	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	11/7/2019	Mid-Ebb	Cloudy	Moderate	10:24	11	B	10	3	3	NA	NA	NA	NA	NA	0.18	0.96	0.10	1.24	1.26	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR12	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:45	15	S	1	1	3	0.07	0.08	0.005	0.005	0.005	NA	NA	NA	NA	NA	8000	7483	6650	NA	NA	NA	<1	<1	1				
SR12	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:45	15	S	1	2	3	0.08	0.08	0.005	0.005	0.005	NA	NA	NA	NA	NA	7000	7483	6650	NA	NA	NA	<1	<1	1				
SR12	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:45	15	S	1	3	3	0.07	0.08	0.005	0.005	0.005	NA	NA	NA	NA	NA	8000	7483	6650	NA	NA	NA	<1	<1	1				
SR12	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:45	15	M	7.5	1	2	0.22	0.19	0.015	0.013	0.012	NA	NA	NA	NA	NA	6300	6399	6650	NA	NA	NA	<1	<1	1				
SR12	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:45	15	M	7.5	2	2	0.16	0.19	0.011	0.013	0.012	NA	NA	NA	NA	NA	6500	6399	6650	NA	NA	NA	<1	<1	1				
SR12	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:45	15	M	7.5	3	3	0.19	0.26	0.013	0.018	0.018	NA	NA	NA	NA	NA	5800	6140	6650	NA	NA	NA	<1	<1	1				
SR12	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:45	15	B	14	1	2	0.32	0.26	0.022	0.018	0.018	NA	NA	NA	NA	NA	6500	6140	6650	NA	NA	NA	1	1	1				
SR12	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:45	15	B	14	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	S	1	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	S	1	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	S	1	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	M	7	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	M	7	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	M	7	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	B	13	1	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	B	13	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	11/7/2019	Mid-Ebb	Cloudy	Moderate	8:21	14	B	13	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																												
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)					
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.			
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	S	1	1	8.11	8.12	22.03	22.06	22.05	27.76	27.76	84.2	84.0	84.1	5.85	5.84	5.85	5.60	1.1	1.3	1.2	0.13	0.13	0.13	0.009	0.009	0.009	0.13	0.63	0.08	0.84	0.86	0.94
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	S	1	2	8.12	8.14	22.03	22.06	22.05	27.76	27.76	84.2	84.0	84.1	5.85	5.84	5.85	5.60	1.1	1.3	1.2	0.13	0.13	0.13	0.009	0.009	0.009	0.13	0.66	0.08	0.87	0.86	0.94
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	M	14	1	8.14	8.14	22.39	22.42	22.41	27.64	27.65	77.3	77.0	77.2	5.37	5.35	5.36	5.60	2.4	2.6	2.5	0.15	0.14	0.15	0.011	0.010	0.011	0.15	0.71	0.09	0.95	0.95	0.94
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	M	14	2	8.13	8.17	22.39	22.42	22.41	27.64	27.65	77.3	77.0	77.2	5.37	5.35	5.36	5.60	2.4	2.6	2.5	0.15	0.14	0.15	0.011	0.010	0.011	0.15	0.71	0.09	0.94	0.95	0.94
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	M	14	3	8.14	8.17	22.39	22.42	22.41	27.64	27.65	77.3	77.0	77.2	5.37	5.35	5.36	5.60	2.4	2.6	2.5	0.15	0.14	0.15	0.011	0.010	0.011	0.15	0.72	0.09	0.96	0.95	0.94
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	B	27	1	8.17	8.17	22.86	22.86	22.86	27.52	27.53	70.3	70.4	70.4	4.89	4.90	4.90	5.62	3.6	3.4	3.5	0.16	0.15	0.16	0.012	0.012	0.012	0.16	0.73	0.10	0.99	0.99	0.99
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	B	27	2	8.16	8.17	22.85	22.86	22.86	27.53	27.53	70.4	70.4	70.4	4.90	4.90	4.90	5.62	3.4	3.5	3.5	0.15	0.15	0.16	0.012	0.012	0.012	0.15	0.74	0.11	1.00	0.99	0.99
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	B	27	3	8.16	8.17	22.85	22.86	22.86	27.53	27.53	70.4	70.4	70.4	4.90	4.90	4.90	5.62	3.4	3.5	3.5	0.15	0.15	0.16	0.012	0.012	0.012	0.15	0.73	0.11	0.99	0.99	0.99
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	S	1	1	8.14	8.15	21.69	21.66	21.68	28.03	28.03	82.3	82.5	82.4	5.73	5.75	5.74	5.62	1.4	1.6	1.5	0.20	0.21	0.21	0.016	0.016	0.016	0.20	0.52	0.07	0.79	0.76	0.78
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	S	1	2	8.15	8.15	21.66	21.66	21.68	28.03	28.03	82.3	82.5	82.4	5.73	5.75	5.74	5.62	1.4	1.6	1.5	0.20	0.21	0.21	0.016	0.016	0.016	0.21	0.48	0.07	0.76	0.76	0.78
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	S	1	3	8.15	8.15	21.66	21.66	21.68	28.03	28.03	82.3	82.5	82.4	5.73	5.75	5.74	5.62	1.4	1.6	1.5	0.20	0.21	0.21	0.016	0.016	0.016	0.21	0.46	0.07	0.74	0.76	0.78
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	M	6.5	1	8.15	8.16	21.89	21.92	21.91	27.93	27.93	78.7	79.3	79.0	5.48	5.52	5.50	5.62	2.1	1.9	2.0	0.22	0.23	0.23	0.017	0.018	0.018	0.22	0.48	0.06	0.76	0.78	0.78
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	M	6.5	2	8.16	8.16	21.92	21.92	21.91	27.93	27.93	78.7	79.3	79.0	5.48	5.52	5.50	5.62	2.1	1.9	2.0	0.22	0.23	0.23	0.017	0.018	0.018	0.22	0.50	0.07	0.80	0.78	0.78
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	M	6.5	3	8.16	8.16	21.92	21.92	21.91	27.93	27.93	78.7	79.3	79.0	5.48	5.52	5.50	5.62	2.1	1.9	2.0	0.22	0.23	0.23	0.017	0.018	0.018	0.22	0.50	0.06	0.78	0.78	0.78
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	B	12	1	8.15	8.15	22.13	22.10	22.12	27.84	27.85	72.6	72.3	72.5	5.05	5.03	5.04	5.62	2.8	2.7	2.8	0.24	0.25	0.25	0.019	0.019	0.019	0.24	0.49	0.06	0.79	0.79	0.79
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	B	12	2	8.15	8.15	22.10	22.10	22.12	27.85	27.85	72.3	72.3	72.5	5.03	5.03	5.04	5.62	2.7	2.7	2.8	0.25	0.25	0.25	0.019	0.019	0.019	0.25	0.49	0.06	0.80	0.79	0.79
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	B	12	3	8.15	8.15	22.10	22.10	22.12	27.85	27.85	72.3	72.3	72.5	5.03	5.03	5.04	5.62	2.7	2.7	2.8	0.25	0.25	0.25	0.019	0.019	0.019	0.24	0.48	0.06	0.78	0.79	0.79
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	S	1	1	8.17	8.17	19.42	19.46	19.44	28.87	28.86	82.3	82.1	82.2	5.85	5.83	5.84	5.68	2.6	2.7	2.7	NA	NA	NA	NA	NA	NA	0.10	1.10	0.10	1.30	1.24	1.31
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	S	1	2	8.16	8.17	19.42	19.46	19.44	28.87	28.86	82.3	82.1	82.2	5.85	5.83	5.84	5.68	2.6	2.7	2.7	NA	NA	NA	NA	NA	NA	0.11	1.00	0.10	1.21	1.24	1.31
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	S	1	3	8.17	8.17	19.42	19.46	19.44	28.87	28.86	82.3	82.1	82.2	5.85	5.83	5.84	5.68	2.6	2.7	2.7	NA	NA	NA	NA	NA	NA	0.10	1.00	0.11	1.21	1.24	1.31
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	M	6	1	8.17	8.17	19.73	19.70	19.72	28.80	28.79	77.7	77.6	77.7	5.53	5.52	5.53	5.68	3.4	3.6	3.5	NA	NA	NA	NA	NA	NA	0.12	1.00	0.12	1.24	1.32	1.31
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	M	6	2	8.17	8.17	19.73	19.70	19.72	28.80	28.79	77.7	77.6	77.7	5.53	5.52	5.53	5.68	3.4	3.6	3.5	NA	NA	NA	NA	NA	NA	0.11	1.12	0.13	1.36	1.32	1.31
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	M	6	3	8.17	8.19	19.91	19.89	19.90	28.71	28.72	72.3	72.4	72.4	5.14	5.15	5.15	5.68	4.3	4.1	4.2	NA	NA	NA	NA	NA	NA	0.14	1.12	0.13	1.39	1.38	1.38
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	B	11	1	8.19	8.19	19.91	19.89	19.90	28.71	28.72	72.3	72.4	72.4	5.14	5.15	5.15	5.68	4.3	4.1	4.2	NA	NA	NA	NA	NA	NA	0.14	1.12	0.12	1.38	1.38	1.38
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	B	11	2	8.18	8.19	19.89	19.89	19.90	28.72	28.72	72.4	72.4	72.4	5.15	5.15	5.15	5.68	4.1	4.2	4.2	NA	NA	NA	NA	NA	NA	0.14	1.12	0.12	1.38	1.38	1.38
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	B	11	3	8.18	8.19	19.89	19.89	19.90	28.72	28.72	72.4	72.4	72.4	5.15	5.15	5.15	5.68	4.1	4.2	4.2	NA	NA	NA	NA	NA	NA	0.14	1.12	0.12	1.38	1.38	1.38
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	S	1	1	8.14	8.14	19.11	19.14	19.13	27.68	27.66	85.4	85.6	85.5	5.98	5.99	5.99	5.87	2.0	2.4	2.2	0.18	0.18	0.18	0.014	0.014	0.014	NA	NA	NA	NA	NA	NA
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	S	1	2	8.13	8.14	19.14	19.13	19.13	27.66	27.67	85.6	85.5	85.5	5.99	5.99	5.99	5.87	2.4	2.2	2.2	0.18	0.18	0.18	0.014	0.014	0.014	NA	NA	NA	NA	NA	NA
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	S	1	3	8.14	8.14	19.14	19.13	19.13	27.66	27.67	85.6	85.5	85.5	5.99	5.99	5.99	5.87	2.4	2.2	2.2	0.18	0.18	0.18	0.014	0.014	0.014	NA	NA	NA	NA	NA	NA
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	M	4.5	1	8.14	8.14	19.32	19.29	19.31	27.60	27.61	82.1	82.4	82.3	5.74	5.77	5.76	5.87	2.9	2.7	2.8	0.19	0.20	0.20	0.014	0.015	0.015	NA	NA	NA	NA	NA	NA
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	M	4.5	2	8.14	8.14	19.32	19.29	19.31	27.61	27.61	82.1	82.4	82.3	5.74	5.77	5.76	5.87	2.9	2.7	2.8	0.19	0.20	0.20	0.014	0.015	0.015	NA	NA	NA	NA	NA	NA
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	M	4.5	3	8.14	8.16	19.32	19.29	19.31	27.61	27.61	82.1	82.4	82.3	5.74	5.77	5.76	5.87	2.9	2.7	2.8	0.19	0.20	0.20	0.014	0.015	0.015	NA	NA	NA	NA	NA	NA
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	B	8	1	8.16	8.16	19.59	19.62	19.61	27.52	27.53	78.3	78.1	78.2	5.48	5.46	5.47	5.87	3.3	3.1	3.2	0.21	0.21	0.21	0.016	0.016	0.016	NA	NA	NA	NA	NA	NA
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	B	8	2	8.15	8.16	19.62	19.61	19.61	27.53	27.53	78.1	78.2	78.2	5.46	5.46	5.47	5.87	3.1	3.2	3.2	0.21	0.21	0.21	0.016	0.016	0.016	NA	NA	NA	NA	NA	NA
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	B	8	3	8.15	8.16	19.62	19.61	19.61	27.53	27.53	78.1	78.2	78.2	5.46	5.46	5.47	5.87	3.1	3.2	3.2	0.21	0.21	0.21	0.016	0.016	0.016	NA	NA	NA	NA	NA	NA
SR3																																						

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																										
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)				
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	S	1	1	8.13	19.36	19.38	28.23	28.22	81.0	80.9	5.66	5.64	5.65	2.2	2.0	2.1	0.10	0.10	0.10	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA		
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	S	1	2	8.14	19.39	19.38	28.21	28.22	80.7	80.9	5.64	5.65	5.65	2.0	2.0	2.1	0.10	0.10	0.10	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA		
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	S	1	3																				NA	NA	NA	NA	NA	NA		
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	M		1		NA	NA	NA	NA	NA	NA	NA	NA	5.65	NA	NA	2.4	NA	NA	0.11	NA	0.009	NA	NA	NA	NA	NA	NA	NA		
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	M		2																			NA	NA	NA	NA	NA	NA	NA		
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	M		3																			NA	NA	NA	NA	NA	NA	NA		
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	B	3	1	8.13	19.46	19.48	28.17	28.18	76.9	77.1	5.38	5.40	5.40	2.6	2.7	2.7	0.12	0.12	0.12	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA		
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	B	3	2	8.14	19.49	19.48	28.18	28.18	77.2	77.1	5.41	5.40	5.40	2.7	2.7	2.7	0.12	0.12	0.12	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA		
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	B	3	3																			NA	NA	NA	NA	NA	NA	NA		
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	S	1	1	8.13	20.62	20.61	27.88	27.88	89.1	89.0	6.17	6.16	6.16	1.6	1.5	1.6	NA	NA	NA	NA	NA	NA	0.10	0.70	0.08	0.88	NA	NA		
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	S	1	2	8.12	20.59	20.61	27.87	27.88	88.8	89.0	6.15	6.16	6.16	1.5	1.5	1.6	NA	NA	NA	NA	NA	NA	0.11	0.70	0.09	0.90	0.87	NA		
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	S	1	3																			NA	NA	NA	NA	NA	NA	NA	NA	
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	M	5.5	1	8.14	20.89	20.91	27.80	27.80	83.4	83.3	5.77	5.77	5.77	2.2	2.3	2.3	NA	NA	NA	NA	NA	NA	0.10	0.65	0.08	0.83	0.86	0.88		
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	M	5.5	2	8.13	20.92	20.91	27.79	27.80	83.2	83.3	5.76	5.77	5.77	2.4	2.3	2.3	NA	NA	NA	NA	NA	NA	0.12	0.64	0.07	0.83	0.86	0.88		
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	M	5.5	3																			NA	NA	NA	NA	NA	NA	NA	NA	
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	B	10	1	8.14	21.03	21.05	27.71	27.71	79.6	79.6	5.51	5.51	5.51	3.0	2.9	3.0	NA	NA	NA	NA	NA	NA	0.12	0.68	0.07	0.86	0.86	0.88		
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	B	10	2	8.15	21.06	21.05	27.70	27.71	79.5	79.6	5.50	5.51	5.51	2.9	2.9	3.0	NA	NA	NA	NA	NA	NA	0.14	0.70	0.08	0.92	0.92	0.92		
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	B	10	3																			NA	NA	NA	NA	NA	NA	NA	NA	
SR12	13/7/2019	Mid-Flood	Fine	Moderate	15:28	15	S	1	1	8.12	19.04	19.06	28.03	28.04	82.2	82.1	5.70	5.69	5.69	1.6	1.8	1.7	0.13	0.13	0.13	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA		
SR12	13/7/2019	Mid-Flood	Fine	Moderate	15:28	15	S	1	2	8.13	19.07	19.06	28.04	28.04	82.0	82.1	5.67	5.69	5.69	1.8	1.8	1.7	0.13	0.13	0.13	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA		
SR12	13/7/2019	Mid-Flood	Fine	Moderate	15:28	15	S	1	3																			NA	NA	NA	NA	NA	NA	NA	NA	
SR12	13/7/2019	Mid-Flood	Fine	Moderate	15:28	15	M	7.5	1	8.14	19.39	19.41	27.92	27.93	74.4	74.3	5.18	5.17	5.17	2.9	2.7	2.8	0.12	0.13	0.13	0.009	0.010	0.010	NA	NA	NA	NA	NA	NA		
SR12	13/7/2019	Mid-Flood	Fine	Moderate	15:28	15	M	7.5	2	8.15	19.43	19.41	27.94	27.93	74.2	74.3	5.16	5.17	5.17	2.7	2.7	2.8	0.13	0.13	0.13	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA		
SR12	13/7/2019	Mid-Flood	Fine	Moderate	15:28	15	M	7.5	3																			NA	NA	NA	NA	NA	NA	NA	NA	
SR12	13/7/2019	Mid-Flood	Fine	Moderate	15:28	15	B	14	1	8.14	19.82	19.81	27.83	27.83	68.6	68.7	4.79	4.80	4.80	3.4	3.2	3.3	0.14	0.14	0.14	0.011	0.011	0.011	NA	NA	NA	NA	NA	NA		
SR12	13/7/2019	Mid-Flood	Fine	Moderate	15:28	15	B	14	2	8.14	19.79	19.81	27.83	27.83	68.7	68.7	4.80	4.80	4.80	3.2	3.2	3.3	0.14	0.14	0.14	0.011	0.011	0.011	NA	NA	NA	NA	NA	NA		
SR12	13/7/2019	Mid-Flood	Fine	Moderate	15:28	15	B	14	3																			NA	NA	NA	NA	NA	NA	NA	NA	
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	S	1	1	8.12	20.08	20.10	27.94	27.94	90.3	90.2	6.18	6.17	6.17	1.4	1.2	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	S	1	2	8.13	20.11	20.10	27.93	27.94	90.0	90.2	6.15	6.17	6.17	1.2	1.2	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	S	1	3																			NA	NA	NA	NA	NA	NA	NA	NA	
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	M	7	1	8.14	20.39	20.41	27.82	27.82	86.4	86.4	5.91	5.91	5.91	2.0	1.9	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	M	7	2	8.13	20.42	20.41	27.82	27.82	86.3	86.4	5.90	5.91	5.91	1.9	1.9	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	M	7	3																			NA	NA	NA	NA	NA	NA	NA	NA	
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	B	13	1	8.16	20.69	20.68	27.73	27.74	81.8	81.7	5.60	5.59	5.59	2.8	2.8	2.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	B	13	2	8.15	20.66	20.68	27.74	27.74	81.5	81.7	5.58	5.59	5.59	2.7	2.7	2.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																										
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)					
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.			
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	S	1	1	3	0.12			0.009			0.009			0.12	0.59	0.08	0.79				1700			NA			2			
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	S	1	2	3	0.12	0.12		0.009	0.009					0.12	0.65	0.08	0.85	0.84			1600	1649		NA	NA		2	2		
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	S	1	3											0.12	0.69	0.08	0.89													
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	M	14	1	3	0.11			0.008						0.11	0.70	0.08	0.89				1600			NA			<1			
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	M	14	2	3	0.14	0.13	0.12	0.010	0.009					0.14	0.67	0.08	0.89	0.90	0.91		1400	1497	1609	NA	NA	NA	<1	1	1	
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	M	14	3											0.13	0.70	0.08	0.91													
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	B	27	1	3	0.14			0.011						0.14	0.99	0.08	1.21				1500			NA			1			
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	B	27	2	3	0.11	0.13		0.009	0.010					0.11	0.70	0.08	0.89	1.00			1900	1688		NA	NA		<1	1		
C1A	13/7/2019	Mid-Flood	Fine	Moderate	13:30	28	B	27	3											0.11	0.70	0.08	0.89													
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	S	1	1	3	0.19			0.015						0.19	0.53	0.07	0.79				1700			NA			2			
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	S	1	2	3	0.16	0.18		0.012	0.014					0.16	0.49	0.07	0.72	0.76			1700	1700		NA	NA		2	2		
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	S	1	3											0.22	0.49	0.07	0.78													
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	M	6.5	1	3	0.20			0.016						0.20	0.50	0.07	0.77				1800			NA			<1			
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	M	6.5	2	3	0.22	0.21	0.20	0.017	0.017	0.015				0.22	0.49	0.07	0.78	0.77	0.77		1700	1749	1619	NA	NA	NA	<1	1	1	
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	M	6.5	3											0.20	0.49	0.07	0.76													
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	B	12	1	2	0.20			0.015						0.20	0.49	0.07	0.76				1700			NA			1			
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	B	12	2	3	0.22	0.21		0.017	0.016					0.22	0.53	0.07	0.82	0.78			1200	1428		NA	NA		<1	1		
C2A	13/7/2019	Mid-Flood	Fine	Moderate	16:03	13	B	12	3											0.19	0.49	0.07	0.75													
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	S	1	1	3	NA			NA						0.09	1.10	0.08	1.27	1.24			NA	NA		NA			NA			
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	S	1	2	3	NA	NA		NA	NA					0.09	1.10	0.08	1.27				NA	NA		NA	NA		NA	NA		
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	S	1	3											0.09	1.00	0.08	1.17													
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	M	6	1	2	NA			NA						0.08	1.10	0.08	1.26				NA	NA		NA	NA		NA	NA		
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	M	6	2	3	NA	NA		NA	NA					0.08	1.10	0.08	1.26	1.27	1.28		NA	NA		NA	NA		NA	NA		
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	M	6	3											0.10	1.10	0.08	1.28													
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	B	11	1	3	NA			NA						0.10	1.30	0.08	1.48				NA	NA		NA	NA		NA	NA		
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	B	11	2	3	NA	NA		NA	NA					0.07	1.10	0.08	1.25	1.34			NA	NA		NA	NA		NA	NA		
G2	13/7/2019	Mid-Flood	Fine	Moderate	14:33	12	B	11	3											0.09	1.10	0.09	1.28													
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	S	1	1	3	0.18			0.014						NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	S	1	2	3	0.23	0.21		0.017	0.016					NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	S	1	3											NA	NA	NA	NA	NA												
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	M	4.5	1	4	0.12			0.009						NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	M	4.5	2	4	0.21	0.17	0.20	0.016	0.013	0.015				NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	M	4.5	3											NA	NA	NA	NA	NA												
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	B	8	1	3	0.20			0.016						NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	B	8	2	4	0.23	0.22		0.018	0.017					NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	
SR2	13/7/2019	Mid-Flood	Fine	Moderate	14:11	9	B	8	3											NA	NA	NA	NA	NA												
SR3	13/7/2019	Mid-Flood	Fine	Moderate	14:50	8	S	1	1	3	0.14			0.011						NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	
SR3	13/7/2019	Mid-Flood	Fine	Moderate	14:50	8	S	1	2	2	0.13	0.14		0.010	0.011					NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	
SR3	13/7/2019	Mid-Flood	Fine	Moderate	14:50	8	S	1	3											NA	NA	NA	NA	NA												
SR3	13/7/2019	Mid-Flood	Fine	Moderate	14:50	8	M	4	1	3	0.14			0.005						NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	
SR3	13/7/2019	Mid-Flood	Fine	Moderate	14:50	8	M	4	2	3	0.12	0.13	0.13	0.004	0.005	0.008				NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	
SR3	13/7/2019	Mid-Flood	Fine	Moderate	14:50	8	M	4	3											NA	NA	NA	NA	NA												
SR3	13/7/2019	Mid-Flood	Fine	Moderate	14:50	8	B	7	1	3	0.11			0.009						NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	
SR3	13/7/2019	Mid-Flood	Fine	Moderate	14:50	8	B	7	2	3	0.12	0.12		0.010	0.010					NA	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA	
SR3	13/7/2019	Mid-Flood	Fine	Moderate	14:50	8	B	7	3											NA	NA	NA	NA	NA												

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																												
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)							
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.					
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	S	1	1	2	0.08	0.09	0.09	0.006	0.007	0.007	0.007	0.007	0.008	NA	NA	NA	NA	NA	10000	9500	9747	NA	NA	NA	NA	1	2	1				
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	S	1	2	2	0.09	0.09	0.09	0.007	0.007	0.007	0.007	0.008	NA	NA	NA	NA	NA	9500	9747	10582	NA	NA	NA	NA	2	1						
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	S	1	3		NA	NA	0.10	0.10	0.11	0.009	0.009	0.009	0.008	NA	NA	NA	NA	NA	NA	10582	NA	NA	NA	NA	NA	NA						
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	M		2		NA	NA	0.10	0.10	0.11	0.009	0.009	0.009	0.008	NA	NA	NA	NA	NA	10582	NA	NA	NA	NA	NA	NA							
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	M		3		NA	NA	0.10	0.10	0.11	0.009	0.009	0.009	0.008	NA	NA	NA	NA	NA	10582	NA	NA	NA	NA	NA	NA							
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	B	3	1	2	0.12	0.11	0.11	0.009	0.009	0.009	0.009	0.009	0.008	NA	NA	NA	NA	NA	12000	11489	11489	NA	NA	NA	NA	2	2					
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	B	3	2	2	0.10	0.11	0.11	0.009	0.009	0.009	0.009	0.009	0.008	NA	NA	NA	NA	NA	11489	11489	11489	NA	NA	NA	NA	2	2					
SR4	13/7/2019	Mid-Flood	Fine	Moderate	15:11	4	B	3	3		NA	NA	0.10	0.10	0.11	0.009	0.009	0.009	0.008	NA	NA	NA	NA	NA	11489	11489	11489	NA	NA	NA	NA	2	2					
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	S	1	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	0.69	0.08	0.85	0.86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	S	1	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	0.71	0.08	0.88	0.86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	S	1	3		NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	0.67	0.08	0.84	0.86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	M	5.5	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	0.69	0.08	0.86	0.86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	M	5.5	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	0.71	0.08	0.88	0.86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	M	5.5	3		NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	0.67	0.08	0.84	0.86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	B	10	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	0.63	0.08	0.79	0.83	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	B	10	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	0.71	0.08	0.87	0.83	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	13/7/2019	Mid-Flood	Fine	Moderate	13:50	11	B	10	3		NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	0.67	0.08	0.84	0.83	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR12	13/7/2019	Mid-Flood	Fine	Moderate	15:28	15	S	1	1	3	0.13	0.12	0.12	0.010	0.008	0.009	0.009	0.008	0.008	NA	NA	NA	NA	NA	8600	6800	7647	NA	NA	NA	NA	<1	<1	1				
SR12	13/7/2019	Mid-Flood	Fine	Moderate	15:28	15	S	1	2	2	0.11	0.12	0.12	0.008	0.008	0.009	0.009	0.008	0.008	NA	NA	NA	NA	NA	6800	7647	8641	NA	NA	NA	NA	<1	<1					
SR12	13/7/2019	Mid-Flood	Fine	Moderate	15:28	15	S	1	3		0.10	0.10	0.10	0.008	0.007	0.007	0.008	0.008	0.008	NA	NA	NA	NA	NA	11000	9300	10114	8641	NA	NA	NA	NA	1	1	1			
SR12	13/7/2019	Mid-Flood	Fine	Moderate	15:28	15	M	7.5	1	3	0.10	0.10	0.10	0.008	0.007	0.007	0.008	0.008	0.008	NA	NA	NA	NA	NA	9300	10114	8641	NA	NA	NA	NA	1	1	1				
SR12	13/7/2019	Mid-Flood	Fine	Moderate	15:28	15	M	7.5	3		0.09	0.10	0.10	0.007	0.007	0.007	0.008	0.008	0.008	NA	NA	NA	NA	NA	10114	8641	8641	NA	NA	NA	NA	1	1	1				
SR12	13/7/2019	Mid-Flood	Fine	Moderate	15:28	15	B	14	1	2	0.09	0.11	0.11	0.007	0.010	0.008	0.008	0.008	0.008	NA	NA	NA	NA	NA	8700	8000	8343	NA	NA	NA	NA	<1	<1	1				
SR12	13/7/2019	Mid-Flood	Fine	Moderate	15:28	15	B	14	3		0.13	0.11	0.11	0.010	0.010	0.008	0.008	0.008	0.008	NA	NA	NA	NA	NA	8000	8343	8343	NA	NA	NA	NA	<1	<1					
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	S	1	1	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	S	1	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	S	1	3		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	M	7	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	M	7	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	M	7	3		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	B	13	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	B	13	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	13/7/2019	Mid-Flood	Fine	Moderate	15:44	14	B	13	3		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																															
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)									
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.						
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	S	1	1	8.12	8.13	19.11	19.14	19.13	28.66	28.66	80.9	81.2	5.72	5.73	2.4	2.5	2.7	0.12	0.12	0.12	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	S	1	3																																
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	M		1																																
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	M		2																																
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	M		3																																
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	B	3	1	8.13																															
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	B	3	2	8.13	8.13	19.23	19.25	19.25	28.62	28.62	77.6	77.5	5.46	5.47	2.9	2.8	2.7	0.10	0.10	0.10	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	B	3	3																																
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	S	1	1	8.10																															
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	S	1	2	8.11	8.11	20.47	20.48	20.48	27.64	27.64	88.4	88.6	6.17	6.18	1.3	1.4	1.5	NA	NA	NA	NA	NA	NA	NA	0.13	0.65	0.07	0.85					0.87		
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	S	1	3																																
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	M	5.5	1	8.12																															
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	M	5.5	2	8.13	8.13	20.62	20.63	20.63	27.56	27.56	84.1	84.3	5.87	5.88	2.0	2.0	1.9	NA	NA	NA	NA	NA	NA	NA	0.12	0.65	0.08	0.85					0.86		
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	M	5.5	3																																
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	B	10	1	8.13																															
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	B	10	2	8.13	8.13	20.89	20.91	20.91	27.48	27.48	80.2	80.1	5.60	5.59	2.7	2.6	2.5	NA	NA	NA	NA	NA	NA	NA	0.11	0.68	0.07	0.86					0.86		
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	B	10	3																																
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	S	1	1	8.11																															
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	S	1	2	8.12	8.12	18.69	18.70	18.70	28.18	28.18	81.2	81.1	5.67	5.66	1.2	1.3	1.4	0.13	0.13	0.13	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	S	1	3																																
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	M	7.5	1	8.14																															
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	M	7.5	2	8.13	8.14	18.90	18.92	18.92	28.10	28.10	76.7	76.6	5.35	5.34	2.0	2.1	2.2	0.12	0.12	0.12	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	M	7.5	3																																
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	B	14	1	8.14																															
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	B	14	2	8.15	8.15	19.10	19.09	19.09	28.02	28.02	70.3	70.5	4.90	4.91	2.9	3.1	3.2	0.13	0.13	0.13	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	B	14	3																																
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	S	1	1	8.13																															
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	S	1	2	8.14	8.14	19.40	19.42	19.42	28.08	28.08	89.0	88.9	6.22	6.21	1.5	1.6	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	S	1	3																																
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	M	7	1	8.13																															
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	M	7	2	8.14	8.14	19.76	19.77	19.77	28.00	28.00	84.2	84.3	5.88	5.89	2.2	2.3	2.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	M	7	3																																
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	B	13	1	8.15																															
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	B	13	2	8.16	8.16	20.00	19.99	19.99	27.91	27.91	80.6	80.8	5.63	5.64	3.0	3.1	3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	B	13	3																																

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
C1A	13/7/2019	Mid-Ebb	Fine	Moderate	13:20	28	S	1	1	3	0.10			0.007			0.10	0.58	0.08	0.76				1400			NA			<1			
C1A	13/7/2019	Mid-Ebb	Fine	Moderate	13:20	28	S	1	2	2	0.12	0.11		0.008	0.007		0.12	0.68	0.08	0.88	0.85			1300	1349		NA	NA		1	1		
C1A	13/7/2019	Mid-Ebb	Fine	Moderate	13:20	28	S	1	3							0.12	0.71	0.08	0.91							NA	NA						
C1A	13/7/2019	Mid-Ebb	Fine	Moderate	13:20	28	M	14	1	3	0.13			0.009			0.13	0.62	0.08	0.83	0.88			1500			NA			1			
C1A	13/7/2019	Mid-Ebb	Fine	Moderate	13:20	28	M	14	2	2	0.13	0.13		0.009			0.13	0.68	0.08	0.89	0.88			1500	1500	1431	NA	NA		1			
C1A	13/7/2019	Mid-Ebb	Fine	Moderate	13:20	28	M	14	3							0.14	0.70	0.08	0.92							NA							
C1A	13/7/2019	Mid-Ebb	Fine	Moderate	13:20	28	B	27	1	2	0.12			0.009			0.12	0.63	0.08	0.83	0.85			1400			NA			1			
C1A	13/7/2019	Mid-Ebb	Fine	Moderate	13:20	28	B	27	2	3	0.12	0.12		0.009	0.009		0.12	0.62	0.08	0.82	0.85			1500	1449		NA	NA		<1		1	
C1A	13/7/2019	Mid-Ebb	Fine	Moderate	13:20	28	B	27	3							0.14	0.69	0.08	0.91							NA							
C2A	13/7/2019	Mid-Ebb	Fine	Moderate	10:40	13	S	1	1	3	0.22			0.015			0.22	0.49	0.07	0.78	0.73			1400			NA			<1			
C2A	13/7/2019	Mid-Ebb	Fine	Moderate	10:40	13	S	1	2	2	0.21	0.22		0.015	0.015		0.21	0.42	0.07	0.70	0.73			1700	1543		NA	NA		<1		1	
C2A	13/7/2019	Mid-Ebb	Fine	Moderate	10:40	13	S	1	3							0.20	0.45	0.07	0.72							NA							
C2A	13/7/2019	Mid-Ebb	Fine	Moderate	10:40	13	M	6.5	1	2	0.21			0.015			0.21	0.50	0.07	0.78	0.72			1700			NA			2			
C2A	13/7/2019	Mid-Ebb	Fine	Moderate	10:40	13	M	6.5	2	3	0.14	0.18	0.19	0.010	0.012	0.013	0.14	0.46	0.07	0.67	0.72	0.73		1300	1487	1753	NA	NA		2	2	1	
C2A	13/7/2019	Mid-Ebb	Fine	Moderate	10:40	13	M	6.5	3							0.19	0.44	0.07	0.70							NA							
C2A	13/7/2019	Mid-Ebb	Fine	Moderate	10:40	13	B	12	1	3	0.14			0.010			0.14	0.49	0.07	0.70	0.74			2300			NA			<1			
C2A	13/7/2019	Mid-Ebb	Fine	Moderate	10:40	13	B	12	2	3	0.20	0.17		0.014	0.012		0.20	0.53	0.07	0.80	0.74			2400	2349		NA	NA		<1		1	
C2A	13/7/2019	Mid-Ebb	Fine	Moderate	10:40	13	B	12	3							0.21	0.43	0.07	0.71							NA							
G2	13/7/2019	Mid-Ebb	Fine	Moderate	12:19	12	S	1	1	3	NA			NA			0.08	1.10	0.08	1.26	1.24			NA			NA			NA			
G2	13/7/2019	Mid-Ebb	Fine	Moderate	12:19	12	S	1	2	3	NA	NA		NA	NA		0.08	1.20	0.08	1.36	1.12			NA	NA		NA	NA		NA			
G2	13/7/2019	Mid-Ebb	Fine	Moderate	12:19	12	S	1	3							0.07	0.95	0.08	1.10							NA							
G2	13/7/2019	Mid-Ebb	Fine	Moderate	12:19	12	M	6	1	3	NA			NA			0.09	0.95	0.08	1.12	1.12	1.16		NA			NA	NA		NA	NA		
G2	13/7/2019	Mid-Ebb	Fine	Moderate	12:19	12	M	6	2	3	NA	NA	NA	NA	NA		0.09	0.92	0.08	1.09	1.12			NA	NA		NA	NA		NA	NA		
G2	13/7/2019	Mid-Ebb	Fine	Moderate	12:19	12	M	6	3							0.06	1.00	0.08	1.14							NA							
G2	13/7/2019	Mid-Ebb	Fine	Moderate	12:19	12	B	11	1	3	NA			NA			0.09	0.90	0.08	1.07	1.13			NA	NA		NA	NA		NA	NA		
G2	13/7/2019	Mid-Ebb	Fine	Moderate	12:19	12	B	11	2	3	NA	NA		NA	NA		0.09	1.00	0.08	1.17	1.13			NA	NA		NA	NA		NA	NA		
G2	13/7/2019	Mid-Ebb	Fine	Moderate	12:19	12	B	11	3							0.08	1.00	0.08	1.16							NA							
SR2	13/7/2019	Mid-Ebb	Fine	Moderate	12:41	9	S	1	1	4	0.17			0.012			NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR2	13/7/2019	Mid-Ebb	Fine	Moderate	12:41	9	S	1	2	4	0.23	0.20		0.017	0.014		NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR2	13/7/2019	Mid-Ebb	Fine	Moderate	12:41	9	S	1	3							NA	NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR2	13/7/2019	Mid-Ebb	Fine	Moderate	12:41	9	M	4.5	1	3	0.21			0.015			NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR2	13/7/2019	Mid-Ebb	Fine	Moderate	12:41	9	M	4.5	2	3	0.17	0.19	0.20	0.012	0.014	0.014	NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR2	13/7/2019	Mid-Ebb	Fine	Moderate	12:41	9	M	4.5	3							NA	NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR2	13/7/2019	Mid-Ebb	Fine	Moderate	12:41	9	B	8	1	5	0.21			0.015			NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR2	13/7/2019	Mid-Ebb	Fine	Moderate	12:41	9	B	8	2	5	0.22	0.22		0.015	0.015		NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR2	13/7/2019	Mid-Ebb	Fine	Moderate	12:41	9	B	8	3							NA	NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR3	13/7/2019	Mid-Ebb	Fine	Moderate	11:57	8	S	1	1	4	0.12			0.010			NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR3	13/7/2019	Mid-Ebb	Fine	Moderate	11:57	8	S	1	2	3	0.14	0.13		0.012	0.011		NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR3	13/7/2019	Mid-Ebb	Fine	Moderate	11:57	8	S	1	3							NA	NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR3	13/7/2019	Mid-Ebb	Fine	Moderate	11:57	8	M	4	1	3	0.13			0.011			NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR3	13/7/2019	Mid-Ebb	Fine	Moderate	11:57	8	M	4	2	3	0.11	0.12	0.13	0.009	0.010	0.011	NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR3	13/7/2019	Mid-Ebb	Fine	Moderate	11:57	8	M	4	3							NA	NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR3	13/7/2019	Mid-Ebb	Fine	Moderate	11:57	8	B	7	1	3	0.14			0.012			NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR3	13/7/2019	Mid-Ebb	Fine	Moderate	11:57	8	B	7	2	3	0.15	0.15		0.013	0.012	0.012	NA	NA	NA	NA	NA			NA			NA			NA	NA		
SR3	13/7/2019	Mid-Ebb	Fine	Moderate	11:57	8	B	7	3							NA	NA	NA	NA	NA	NA			NA			NA			NA	NA		

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	S	1	1	2	0.11	0.11	0.009	0.008	0.008	NA	NA	NA	NA	NA	NA	11000	11000	NA	NA	NA	<1	<1	1	1			
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	S	1	2	2	0.10	0.11	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA	11000	11000	NA	NA	NA	<1	<1	1	1			
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	S	1	3	3						NA	NA	NA	NA	NA	NA			NA	NA	NA							
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	M			1						NA	NA	NA	NA	NA	NA			NA	NA	NA							
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	M			2						NA	NA	NA	NA	NA	NA			NA	NA	NA							
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	M			3						NA	NA	NA	NA	NA	NA			NA	NA	NA							
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	B	3	1	2	0.09	0.09	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	5500	7304	NA	NA	NA	1	1	1	1			
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	B	3	2	2	0.09	0.09	0.007	0.007	0.007	NA	NA	NA	NA	NA	NA	9700	7304	NA	NA	NA	1	1	1	1			
SR4	13/7/2019	Mid-Ebb	Fine	Moderate	11:42	4	B	3	3	3						NA	NA	NA	NA	NA	NA			NA	NA	NA							
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	S	1	1	4	NA	NA	NA	NA	NA	0.11	0.62	0.08	0.81	0.85	0.85	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	S	1	2	4	NA	NA	NA	NA	NA	0.12	0.69	0.08	0.89	0.85	0.85	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	S	1	3	3	NA	NA	NA	NA	NA	0.08	0.69	0.08	0.85	0.85	0.85	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	M	5.5	1	4	NA	NA	NA	NA	NA	0.10	0.60	0.08	0.78	0.84	0.83	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	M	5.5	2	4	NA	NA	NA	NA	NA	0.10	0.68	0.08	0.86	0.84	0.83	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	M	5.5	3	3	NA	NA	NA	NA	NA	0.10	0.69	0.08	0.87	0.84	0.83	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	B	10	1	4	NA	NA	NA	NA	NA	0.09	0.62	0.08	0.79	0.80	0.80	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	B	10	2	3	NA	NA	NA	NA	NA	0.10	0.60	0.08	0.78	0.80	0.80	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	13/7/2019	Mid-Ebb	Fine	Moderate	13:02	11	B	10	3	3	NA	NA	NA	NA	NA	0.09	0.67	0.08	0.84	0.80	0.80	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	S	1	1	3	0.11	0.13	0.008	0.009	0.009	NA	NA	NA	NA	NA	NA	10000	9900	9950	9059	9059	NA	NA	NA	1	1		
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	S	1	2	3	0.14	0.13	0.011	0.009	0.009	NA	NA	NA	NA	NA	NA	9900	9950	9059	9059	9059	NA	NA	NA	1	1		
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	S	1	3	3						NA	NA	NA	NA	NA	NA			9059	9059	9059	NA	NA	NA	1	1		
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	M	7.5	1	2	0.12	0.13	0.009	0.010	0.010	NA	NA	NA	NA	NA	NA	6900	10000	8307	9059	9059	NA	NA	NA	1	1		
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	M	7.5	2	3	0.13	0.13	0.010	0.010	0.010	NA	NA	NA	NA	NA	NA			8307	9059	9059	NA	NA	NA	1	1		
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	M	7.5	3	3						NA	NA	NA	NA	NA	NA			9059	9059	9059	NA	NA	NA	1	1		
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	B	14	1	3	0.09	0.10	0.007	0.008	0.008	NA	NA	NA	NA	NA	NA	8700	9300	8995	9059	9059	NA	NA	NA	1	1		
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	B	14	2	2	0.10	0.10	0.008	0.008	0.008	NA	NA	NA	NA	NA	NA			8995	9059	9059	NA	NA	NA	1	1		
SR12	13/7/2019	Mid-Ebb	Fine	Moderate	11:27	15	B	14	3	3						NA	NA	NA	NA	NA	NA			9059	9059	9059	NA	NA	NA	1	1		
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	S	1	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	S	1	2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	S	1	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	M	7	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	M	7	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	M	7	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	B	13	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	B	13	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	13/7/2019	Mid-Ebb	Fine	Moderate	11:04	14	B	13	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																											
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)						
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.		
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	S	1	1	8.32	8.32	11.92	11.92	29.91	29.91	97.1	97.5	97.3	6.88	6.91	6.90	6.88	2.2	2.3	2.3	0.07	0.07	0.07	0.009	0.009	0.009	0.07	0.66	0.08	0.81	0.81	0.81
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	S	1	2	8.32	8.32	11.92	11.92	29.91	29.91	97.5	97.3	6.91	6.90	6.90	6.88	2.2	2.3	2.3	0.07	0.07	0.07	0.009	0.009	0.009	0.07	0.66	0.08	0.81	0.81	0.81	
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	S	1	3	8.32	8.32	11.92	11.92	29.91	29.91	97.5	97.3	6.91	6.90	6.90	6.88	2.2	2.3	2.3	0.07	0.07	0.07	0.009	0.009	0.009	0.07	0.66	0.08	0.81	0.81	0.81	
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	M	14	1	8.31	8.31	12.53	12.53	29.55	29.55	96.8	96.4	6.88	6.85	6.87	6.88	2.5	2.6	2.6	0.08	0.08	0.08	0.010	0.010	0.010	0.08	0.69	0.09	0.86	0.86	0.86	
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	M	14	2	8.31	8.31	12.53	12.53	29.55	29.55	96.4	96.6	6.85	6.87	6.87	6.88	2.5	2.6	2.6	0.08	0.08	0.08	0.010	0.010	0.010	0.08	0.70	0.09	0.87	0.87	0.87	
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	M	14	3	8.31	8.31	12.53	12.53	29.55	29.55	96.4	96.6	6.85	6.87	6.87	6.88	2.5	2.6	2.6	0.08	0.08	0.08	0.010	0.010	0.010	0.08	0.69	0.08	0.85	0.85	0.85	
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	B	27	1	8.31	8.31	13.48	13.48	29.13	29.13	95.3	95.4	6.79	6.82	6.81	6.82	2.6	2.5	2.5	0.08	0.08	0.08	0.010	0.010	0.010	0.08	0.61	0.09	0.78	0.78	0.78	
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	B	27	2	8.31	8.31	13.48	13.48	29.13	29.13	95.4	95.4	6.82	6.81	6.81	6.82	2.5	2.5	2.5	0.08	0.08	0.08	0.010	0.010	0.010	0.08	0.73	0.09	0.90	0.90	0.90	
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	B	27	3	8.31	8.31	13.48	13.48	29.13	29.13	95.4	95.4	6.82	6.81	6.81	6.82	2.5	2.5	2.5	0.08	0.08	0.08	0.010	0.010	0.010	0.08	0.73	0.09	0.90	0.90	0.90	
C2A	16/7/2019	Mid-Flood	Fine	Moderate	5:30	13	S	1	1	8.21	8.21	25.45	25.45	26.77	26.77	77.8	77.5	77.7	5.33	5.31	5.32	1.6	1.6	1.6	0.16	0.17	0.17	0.013	0.014	0.013	0.16	0.18	0.05	0.39	0.40	0.40	
C2A	16/7/2019	Mid-Flood	Fine	Moderate	5:30	13	S	1	2	8.21	8.21	25.45	25.45	26.77	26.77	77.5	77.7	5.31	5.32	5.32	1.6	1.6	1.6	0.16	0.17	0.17	0.013	0.014	0.013	0.16	0.18	0.05	0.40	0.40	0.40		
C2A	16/7/2019	Mid-Flood	Fine	Moderate	5:30	13	S	1	3	8.21	8.21	25.45	25.45	26.77	26.77	77.5	77.7	5.31	5.32	5.32	1.6	1.6	1.6	0.16	0.17	0.17	0.013	0.014	0.013	0.16	0.19	0.05	0.40	0.40	0.40		
C2A	16/7/2019	Mid-Flood	Fine	Moderate	5:30	13	M	6.5	1	8.22	8.22	26.01	26.01	26.35	26.35	64.6	64.2	64.4	4.52	4.50	4.51	1.5	1.4	1.4	0.23	0.23	0.23	0.020	0.020	0.020	0.23	0.14	0.05	0.42	0.42	0.42	
C2A	16/7/2019	Mid-Flood	Fine	Moderate	5:30	13	M	6.5	2	8.22	8.22	6.01	16.01	26.35	26.35	64.2	64.4	4.50	4.51	4.51	1.4	1.4	1.4	0.23	0.23	0.23	0.020	0.020	0.020	0.23	0.13	0.05	0.41	0.41	0.41		
C2A	16/7/2019	Mid-Flood	Fine	Moderate	5:30	13	M	6.5	3	8.22	8.22	6.01	16.01	26.35	26.35	64.2	64.4	4.50	4.51	4.51	1.4	1.4	1.4	0.23	0.23	0.23	0.020	0.020	0.020	0.23	0.13	0.05	0.42	0.42	0.42		
C2A	16/7/2019	Mid-Flood	Fine	Moderate	5:30	13	B	12	1	8.09	8.09	28.58	28.58	25.68	25.68	39.2	39.1	2.82	2.80	2.81	1.7	1.7	1.7	0.23	0.22	0.23	0.013	0.012	0.013	0.23	0.11	0.06	0.40	0.40	0.40		
C2A	16/7/2019	Mid-Flood	Fine	Moderate	5:30	13	B	12	2	8.09	8.09	28.58	28.58	25.68	25.68	38.9	39.1	2.80	2.80	2.81	1.7	1.7	1.7	0.23	0.22	0.23	0.013	0.012	0.013	0.22	0.12	0.06	0.40	0.40	0.40		
C2A	16/7/2019	Mid-Flood	Fine	Moderate	5:30	13	B	12	3	8.09	8.09	28.58	28.58	25.68	25.68	38.9	39.1	2.80	2.80	2.81	1.7	1.7	1.7	0.23	0.22	0.23	0.013	0.012	0.013	0.23	0.12	0.06	0.41	0.41	0.41		
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	S	1	1	8.28	8.28	19.18	19.18	27.95	27.95	78.4	78.8	78.6	5.48	5.52	5.50	2.3	2.4	2.4	NA	NA	NA	NA	NA	NA	0.11	1.98	0.06	2.15	2.15	2.15	
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	S	1	2	8.28	8.28	19.18	19.18	27.95	27.95	78.8	78.6	5.52	5.50	5.50	2.3	2.4	2.4	NA	NA	NA	NA	NA	NA	0.11	1.98	0.06	2.15	2.15	2.15		
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	S	1	3	8.28	8.28	19.18	19.18	27.95	27.95	78.8	78.6	5.52	5.50	5.50	2.3	2.4	2.4	NA	NA	NA	NA	NA	NA	0.11	1.99	0.06	2.16	2.16	2.16		
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	M	6	1	8.25	8.25	21.30	21.30	27.49	27.49	74.4	74.3	5.25	5.24	5.24	2.1	2.0	2.0	NA	NA	NA	NA	NA	NA	0.12	1.99	0.06	2.17	2.17	2.17		
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	M	6	2	8.25	8.25	21.30	21.30	27.49	27.49	74.1	74.3	5.23	5.24	5.24	2.0	2.0	2.0	NA	NA	NA	NA	NA	NA	0.12	2.11	0.06	2.29	2.29	2.29		
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	M	6	3	8.25	8.25	21.30	21.30	27.49	27.49	74.1	74.3	5.23	5.24	5.24	2.0	2.0	2.0	NA	NA	NA	NA	NA	NA	0.12	2.11	0.06	2.29	2.29	2.29		
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	B	11	1	8.25	8.25	21.54	21.54	27.39	27.39	73.2	73.2	5.16	5.16	5.16	2.3	2.3	2.3	NA	NA	NA	NA	NA	NA	0.11	2.11	0.06	2.28	2.28	2.28		
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	B	11	2	8.25	8.25	21.54	21.54	27.39	27.39	73.1	73.2	5.16	5.16	5.16	2.3	2.3	2.3	NA	NA	NA	NA	NA	NA	0.11	2.12	0.06	2.29	2.29	2.29		
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	B	11	3	8.25	8.25	21.54	21.54	27.39	27.39	73.1	73.2	5.16	5.16	5.16	2.3	2.3	2.3	NA	NA	NA	NA	NA	NA	0.12	2.18	0.06	2.36	2.36	2.36		
SR2	16/7/2019	Mid-Flood	Fine	Moderate	7:13	9	S	1	1	8.33	8.33	20.15	20.15	28.07	28.07	89.0	89.1	89.1	6.21	6.30	6.26	2.0	2.0	2.0	0.13	0.13	0.13	0.015	0.015	0.015	NA	NA	NA	NA	NA	NA	
SR2	16/7/2019	Mid-Flood	Fine	Moderate	7:13	9	S	1	2	8.33	8.33	20.15	20.15	28.07	28.07	89.1	89.1	89.1	6.30	6.26	6.26	2.0	2.0	2.0	0.13	0.13	0.13	0.015	0.015	0.015	NA	NA	NA	NA	NA	NA	
SR2	16/7/2019	Mid-Flood	Fine	Moderate	7:13	9	S	1	3	8.33	8.33	20.15	20.15	28.07	28.07	89.1	89.1	89.1	6.30	6.26	6.26	2.0	2.0	2.0	0.13	0.13	0.13	0.015	0.015	0.015	NA	NA	NA	NA	NA	NA	
SR2	16/7/2019	Mid-Flood	Fine	Moderate	7:13	9	M	4.5	1	8.31	8.31	20.85	20.85	27.93	27.93	87.6	87.6	6.11	6.14	6.13	1.9	2.1	2.1	0.13	0.13	0.13	0.014	0.014	0.014	NA	NA	NA	NA	NA	NA		
SR2	16/7/2019	Mid-Flood	Fine	Moderate	7:13	9	M	4.5	2	8.31	8.31	20.85	20.85	27.93	27.93	87.9	87.8	6.14	6.13	6.13	2.2	2.1	2.1	0.13	0.13	0.13	0.014	0.014	0.014	NA	NA	NA	NA	NA	NA		
SR2	16/7/2019	Mid-Flood	Fine	Moderate	7:13	9	M	4.5	3	8.31	8.31	20.85	20.85	27.93	27.93	87.9	87.8	6.14	6.13	6.13	2.2	2.1	2.1	0.13	0.13	0.13	0.014	0.014	0.014	NA	NA	NA	NA	NA	NA		
SR2	16/7/2019	Mid-Flood	Fine	Moderate	7:13	9	B	8	1	8.29	8.29	23.57	23.57	27.16	27.16	79.9	80.3	80																			



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	S	1	1	4	0.08			0.011			0.08	0.63	0.07	0.78				120			NA			1			
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	S	1	2	4	0.07	0.08		0.009	0.010		0.07	0.70	0.08	0.85	0.82			100	110		NA	NA		<1	1		
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	S	1	3		0.07			0.009			0.06	0.71	0.07	0.84				160			NA			<1			
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	M	14	1	4	0.07			0.009			0.07	0.70	0.08	0.85	0.85			100	126	118	NA	NA		1	1	1	
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	M	14	2	3	0.07	0.07	0.07	0.009	0.009	0.009	0.07	0.70	0.07	0.84				110			NA			1			
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	M	14	3		0.08			0.010			0.07	0.71	0.08	0.86				130	120		NA	NA		2	1		
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	B	27	1	4	0.05	0.07		0.006	0.008		0.06	0.72	0.07	0.85	0.85						NA	NA					
C1A	16/7/2019	Mid-Flood	Fine	Moderate	7:54	28	B	27	2	4	0.16			0.013			0.16	0.28	0.04	0.48	0.42			1200			NA			1			
C2A	16/7/2019	Mid-Flood	Fine	Moderate	5:30	13	S	1	1	4	0.17	0.17		0.014	0.013		0.17	0.17	0.04	0.38			110	363		NA	NA		1	1			
C2A	16/7/2019	Mid-Flood	Fine	Moderate	5:30	13	S	1	2	4	0.21			0.018			0.23	0.14	0.04	0.41						NA			<1				
C2A	16/7/2019	Mid-Flood	Fine	Moderate	5:30	13	M	6.5	1	5	0.27	0.24	0.21	0.023	0.020	0.015	0.21	0.13	0.04	0.38	0.39	0.39	2800			NA	NA	NA	1	1	1		
C2A	16/7/2019	Mid-Flood	Fine	Moderate	5:30	13	M	6.5	2	5	0.21			0.012			0.27	0.13	0.04	0.44			510	1195	749	NA	NA		2				
C2A	16/7/2019	Mid-Flood	Fine	Moderate	5:30	13	M	6.5	3		0.22	0.22	0.12	0.012	0.012		0.21	0.11	0.04	0.36			260			NA	NA		2				
C2A	16/7/2019	Mid-Flood	Fine	Moderate	5:30	13	B	12	1	6							0.22	0.12	0.04	0.38	0.36			3600	967		NA	NA		2	2		
C2A	16/7/2019	Mid-Flood	Fine	Moderate	5:30	13	B	12	2	6							0.21	0.11	0.04	0.36						NA	NA						
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	S	1	1	4	NA	NA		NA	NA		0.10	1.80	0.06	1.96	2.09			NA	NA		NA	NA		NA	NA		
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	S	1	2	4	NA	NA		NA	NA		0.10	2.00	0.06	2.16				NA	NA		NA	NA		NA	NA		
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	S	1	3		NA	NA		NA	NA		0.10	2.00	0.06	2.16						NA	NA		NA	NA			
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	M	6	1	4	NA	NA	NA	NA	NA	NA	0.11	2.00	0.06	2.17	2.23	2.21			NA	NA	NA	NA	NA		NA	NA	
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	M	6	2	4	NA	NA	NA	NA	NA	NA	0.10	2.10	0.06	2.26					NA	NA		NA	NA		NA	NA	
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	M	6	3		NA	NA	NA	NA	NA	NA	0.11	2.10	0.06	2.27					NA	NA		NA	NA		NA	NA	
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	B	11	1	5	NA	NA	NA	NA	NA	NA	0.10	2.10	0.06	2.26	2.30				NA	NA		NA	NA		NA	NA	
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	B	11	2	4	NA	NA	NA	NA	NA	NA	0.10	2.10	0.06	2.26					NA	NA		NA	NA		NA	NA	
G2	16/7/2019	Mid-Flood	Fine	Moderate	7:00	12	B	11	3		NA	NA	NA	NA	NA	NA	0.11	2.20	0.06	2.37					NA	NA		NA	NA		NA	NA	
SR2	16/7/2019	Mid-Flood	Fine	Moderate	7:13	9	S	1	1	5	0.12	0.12		0.014	0.014		NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR2	16/7/2019	Mid-Flood	Fine	Moderate	7:13	9	S	1	2	5	0.12			0.014			NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR2	16/7/2019	Mid-Flood	Fine	Moderate	7:13	9	S	1	3		0.13	0.13	0.12	0.013	0.014	0.013	NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR2	16/7/2019	Mid-Flood	Fine	Moderate	7:13	9	M	4.5	1	5	0.12			0.013			NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR2	16/7/2019	Mid-Flood	Fine	Moderate	7:13	9	M	4.5	2	5	0.13			0.014			NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR2	16/7/2019	Mid-Flood	Fine	Moderate	7:13	9	M	4.5	3		0.12	0.12		0.012			NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR2	16/7/2019	Mid-Flood	Fine	Moderate	7:13	9	B	8	1	5	0.11			0.011	0.011		NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR2	16/7/2019	Mid-Flood	Fine	Moderate	7:13	9	B	8	2	5	0.12			0.012			NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR2	16/7/2019	Mid-Flood	Fine	Moderate	7:13	9	B	8	3		0.11			0.011			NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR3	16/7/2019	Mid-Flood	Fine	Moderate	6:49	8	S	1	1	5	0.11	0.12		0.012	0.013		NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR3	16/7/2019	Mid-Flood	Fine	Moderate	6:49	8	S	1	2	5	0.12			0.013			NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR3	16/7/2019	Mid-Flood	Fine	Moderate	6:49	8	S	1	3		0.11			0.012			NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR3	16/7/2019	Mid-Flood	Fine	Moderate	6:49	8	M	4	1	5	0.13	0.12	0.12	0.014	0.013	0.013	NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR3	16/7/2019	Mid-Flood	Fine	Moderate	6:49	8	M	4	2	4	0.13			0.014			NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR3	16/7/2019	Mid-Flood	Fine	Moderate	6:49	8	M	4	3		0.12			0.012			NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR3	16/7/2019	Mid-Flood	Fine	Moderate	6:49	8	M	4	4		0.13	0.13		0.013			NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR3	16/7/2019	Mid-Flood	Fine	Moderate	6:49	8	B	7	1	4	0.13			0.013			NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR3	16/7/2019	Mid-Flood	Fine	Moderate	6:49	8	B	7	2	4	0.13			0.013			NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		
SR3	16/7/2019	Mid-Flood	Fine	Moderate	6:49	8	B	7	3								NA	NA	NA	NA	NA			NA	NA		NA	NA		NA	NA		

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	16/7/2019	Mid-Flood	Fine	Moderate	6:33	4	S	1	1	4	0.11	0.11	0.11	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	470	811	865	NA	NA	NA	1	1	1		
SR4	16/7/2019	Mid-Flood	Fine	Moderate	6:33	4	S	1	2	4	0.10	0.11	0.11	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	1400	811	865	NA	NA	NA	<1	1	1		
SR4	16/7/2019	Mid-Flood	Fine	Moderate	6:33	4	S	1	3	4	0.11	0.11	0.11	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	1400	811	865	NA	NA	NA	<1	1	1		
SR4	16/7/2019	Mid-Flood	Fine	Moderate	6:33	4	M	1	1	4	0.11	0.11	0.11	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	1400	811	865	NA	NA	NA	<1	1	1		
SR4	16/7/2019	Mid-Flood	Fine	Moderate	6:33	4	M	2	2	4	0.11	0.11	0.11	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	1400	811	865	NA	NA	NA	<1	1	1		
SR4	16/7/2019	Mid-Flood	Fine	Moderate	6:33	4	M	3	3	4	0.11	0.11	0.11	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	1400	811	865	NA	NA	NA	<1	1	1		
SR4	16/7/2019	Mid-Flood	Fine	Moderate	6:33	4	B	3	1	4	0.11	0.11	0.11	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	1400	811	865	NA	NA	NA	<1	1	1		
SR4	16/7/2019	Mid-Flood	Fine	Moderate	6:33	4	B	3	2	4	0.11	0.11	0.11	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	1400	811	865	NA	NA	NA	<1	1	1		
SR4	16/7/2019	Mid-Flood	Fine	Moderate	6:33	4	B	3	3	4	0.11	0.11	0.11	0.009	0.009	0.009	NA	NA	NA	NA	NA	NA	1400	811	865	NA	NA	NA	<1	1	1		
SR5	16/7/2019	Mid-Flood	Fine	Moderate	7:34	11	S	1	1	4	NA	NA	NA	NA	NA	NA	0.06	0.69	0.07	0.82	0.83	0.84	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	16/7/2019	Mid-Flood	Fine	Moderate	7:34	11	S	1	2	3	NA	NA	NA	NA	NA	NA	0.05	0.70	0.07	0.82	0.83	0.84	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	16/7/2019	Mid-Flood	Fine	Moderate	7:34	11	S	1	3	4	NA	NA	NA	NA	NA	NA	0.06	0.70	0.08	0.84	0.85	0.86	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	16/7/2019	Mid-Flood	Fine	Moderate	7:34	11	M	5.5	1	3	NA	NA	NA	NA	NA	NA	0.07	0.71	0.08	0.86	0.85	0.86	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	16/7/2019	Mid-Flood	Fine	Moderate	7:34	11	M	5.5	2	3	NA	NA	NA	NA	NA	NA	0.06	0.72	0.07	0.85	0.85	0.85	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	16/7/2019	Mid-Flood	Fine	Moderate	7:34	11	M	5.5	3	4	NA	NA	NA	NA	NA	NA	0.07	0.70	0.08	0.85	0.85	0.85	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	16/7/2019	Mid-Flood	Fine	Moderate	7:34	11	B	10	1	4	NA	NA	NA	NA	NA	NA	0.06	0.71	0.08	0.85	0.85	0.85	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	16/7/2019	Mid-Flood	Fine	Moderate	7:34	11	B	10	2	4	NA	NA	NA	NA	NA	NA	0.07	0.70	0.07	0.84	0.85	0.85	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	16/7/2019	Mid-Flood	Fine	Moderate	7:34	11	B	10	3	4	NA	NA	NA	NA	NA	NA	0.05	0.72	0.08	0.85	0.85	0.85	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR12	16/7/2019	Mid-Flood	Fine	Moderate	6:12	15	S	1	1	4	0.12	0.11	0.11	0.013	0.011	0.012	NA	NA	NA	NA	NA	NA	360	600	285	NA	NA	NA	1	1	1		
SR12	16/7/2019	Mid-Flood	Fine	Moderate	6:12	15	S	1	2	4	0.10	0.11	0.11	0.013	0.011	0.012	NA	NA	NA	NA	NA	NA	1000	600	285	NA	NA	NA	<1	1	1		
SR12	16/7/2019	Mid-Flood	Fine	Moderate	6:12	15	S	1	3	4	0.12	0.11	0.11	0.009	0.008	0.009	NA	NA	NA	NA	NA	NA	130	204	285	NA	NA	NA	<1	1	1		
SR12	16/7/2019	Mid-Flood	Fine	Moderate	6:12	15	M	7.5	1	3	0.12	0.12	0.12	0.009	0.008	0.009	NA	NA	NA	NA	NA	NA	320	204	285	NA	NA	NA	<1	1	1		
SR12	16/7/2019	Mid-Flood	Fine	Moderate	6:12	15	M	7.5	2	4	0.12	0.12	0.12	0.009	0.008	0.009	NA	NA	NA	NA	NA	NA	320	204	285	NA	NA	NA	<1	1	1		
SR12	16/7/2019	Mid-Flood	Fine	Moderate	6:12	15	M	7.5	3	4	0.12	0.12	0.12	0.009	0.008	0.009	NA	NA	NA	NA	NA	NA	320	204	285	NA	NA	NA	<1	1	1		
SR12	16/7/2019	Mid-Flood	Fine	Moderate	6:12	15	B	14	1	4	0.13	0.11	0.11	0.009	0.006	0.007	NA	NA	NA	NA	NA	NA	240	190	285	NA	NA	NA	1	1	1		
SR12	16/7/2019	Mid-Flood	Fine	Moderate	6:12	15	B	14	2	4	0.09	0.11	0.11	0.009	0.006	0.007	NA	NA	NA	NA	NA	NA	150	190	285	NA	NA	NA	1	1	1		
SR12	16/7/2019	Mid-Flood	Fine	Moderate	6:12	15	B	14	3	4	0.13	0.11	0.11	0.009	0.006	0.007	NA	NA	NA	NA	NA	NA	150	190	285	NA	NA	NA	1	1	1		
SR13	16/7/2019	Mid-Flood	Fine	Moderate	5:51	14	S	1	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	16/7/2019	Mid-Flood	Fine	Moderate	5:51	14	S	1	2	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	16/7/2019	Mid-Flood	Fine	Moderate	5:51	14	S	1	3	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	16/7/2019	Mid-Flood	Fine	Moderate	5:51	14	M	7	1	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	16/7/2019	Mid-Flood	Fine	Moderate	5:51	14	M	7	2	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	16/7/2019	Mid-Flood	Fine	Moderate	5:51	14	M	7	3	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	16/7/2019	Mid-Flood	Fine	Moderate	5:51	14	B	13	1	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	16/7/2019	Mid-Flood	Fine	Moderate	5:51	14	B	13	2	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	16/7/2019	Mid-Flood	Fine	Moderate	5:51	14	B	13	3	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.





Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
C1A	16/7/2019	Mid-Ebb	Fine	Moderate	8:23	28	S	1	1	3	0.06			0.008			0.06	0.67	0.07	0.80				100			NA			1			
C1A	16/7/2019	Mid-Ebb	Fine	Moderate	8:23	28	S	1	2	4	0.09	0.08		0.012	0.010		0.09	0.70	0.08	0.87	0.85		66	81		NA	NA		1	1			
C1A	16/7/2019	Mid-Ebb	Fine	Moderate	8:23	28	S	1	3		0.08			0.010			0.08	0.72	0.07	0.87				130			NA			1			
C1A	16/7/2019	Mid-Ebb	Fine	Moderate	8:23	28	M	14	1	5	0.08			0.010			0.08	0.71	0.07	0.86	0.86		44	76	91	NA	NA		1	1	1		
C1A	16/7/2019	Mid-Ebb	Fine	Moderate	8:23	28	M	14	3		0.08	0.08	0.08	0.010	0.010		0.08	0.69	0.08	0.85				140			NA			2			
C1A	16/7/2019	Mid-Ebb	Fine	Moderate	8:23	28	B	27	1	4	0.08			0.010			0.08	0.72	0.08	0.88	0.87		110	124		NA	NA		2	2			
C1A	16/7/2019	Mid-Ebb	Fine	Moderate	8:23	28	B	27	3	4	0.08	0.08		0.010	0.010		0.08	0.70	0.08	0.86				110			NA	NA		2	2		
C2A	16/7/2019	Mid-Ebb	Fine	Moderate	11:00	13	S	1	1	4	0.18			0.020			0.18	0.17	0.04	0.39	0.38		400			NA			2				
C2A	16/7/2019	Mid-Ebb	Fine	Moderate	11:00	13	S	1	2	5	0.21	0.20		0.023	0.022		0.21	0.12	0.04	0.37				20	89		NA	NA		2	2		
C2A	16/7/2019	Mid-Ebb	Fine	Moderate	11:00	13	S	1	3		0.17			0.013			0.22	0.11	0.04	0.37				200			NA			2			
C2A	16/7/2019	Mid-Ebb	Fine	Moderate	11:00	13	M	6.5	1	4	0.24	0.21	0.21	0.018	0.016	0.017	0.17	0.10	0.04	0.31	0.36		80	126	164	NA	NA		1	1	2		
C2A	16/7/2019	Mid-Ebb	Fine	Moderate	11:00	13	M	6.5	3		0.20			0.012			0.24	0.10	0.04	0.38				110			NA			2			
C2A	16/7/2019	Mid-Ebb	Fine	Moderate	11:00	13	B	12	1	5	0.24	0.22		0.014	0.013		0.24	0.09	0.04	0.37	0.33		1400	392		NA	NA		2	2			
C2A	16/7/2019	Mid-Ebb	Fine	Moderate	11:00	13	B	12	3		0.16			0.014	0.013		0.16	0.10	0.04	0.30				1400			NA			2			
G2	16/7/2019	Mid-Ebb	Fine	Moderate	9:20	12	S	1	1	4	NA			NA			0.11	1.70	0.06	1.87				NA			NA			NA			
G2	16/7/2019	Mid-Ebb	Fine	Moderate	9:20	12	S	1	2	5	NA	NA		NA	NA		0.09	1.80	0.06	1.95	1.96		NA	NA		NA	NA		NA	NA			
G2	16/7/2019	Mid-Ebb	Fine	Moderate	9:20	12	S	1	3		NA			NA			0.11	1.90	0.06	2.07				NA			NA			NA			
G2	16/7/2019	Mid-Ebb	Fine	Moderate	9:20	12	M	6	1	4	NA	NA		NA	NA		0.09	1.90	0.06	2.05	2.06		NA	NA		NA	NA		NA	NA			
G2	16/7/2019	Mid-Ebb	Fine	Moderate	9:20	12	M	6	2	5	NA	NA	NA	NA	NA		0.11	1.90	0.06	2.07				NA			NA			NA			
G2	16/7/2019	Mid-Ebb	Fine	Moderate	9:20	12	B	11	1	5	NA	NA		NA	NA		0.09	1.90	0.06	2.05	2.10		NA	NA		NA	NA		NA	NA			
G2	16/7/2019	Mid-Ebb	Fine	Moderate	9:20	12	B	11	2	5	NA	NA		NA	NA		0.11	1.90	0.06	2.07				NA			NA			NA			
G2	16/7/2019	Mid-Ebb	Fine	Moderate	9:20	12	B	11	3		0.13			0.013			0.11	2.00	0.06	2.17				NA			NA			NA			
SR2	16/7/2019	Mid-Ebb	Fine	Moderate	9:08	9	S	1	1	5	0.14			0.014			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR2	16/7/2019	Mid-Ebb	Fine	Moderate	9:08	9	S	1	2	4	0.12	0.13		0.012	0.013		NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR2	16/7/2019	Mid-Ebb	Fine	Moderate	9:08	9	S	1	3		0.12			0.011			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR2	16/7/2019	Mid-Ebb	Fine	Moderate	9:08	9	M	4.5	1	5	0.12	0.12	0.13	0.011	0.011	0.013	NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR2	16/7/2019	Mid-Ebb	Fine	Moderate	9:08	9	M	4.5	2	5	0.12	0.12		0.011			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR2	16/7/2019	Mid-Ebb	Fine	Moderate	9:08	9	M	4.5	3		0.13			0.013			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR2	16/7/2019	Mid-Ebb	Fine	Moderate	9:08	9	B	8	1	5	0.17	0.15		0.016	0.015		NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR2	16/7/2019	Mid-Ebb	Fine	Moderate	9:08	9	B	8	2	6	0.17	0.15		0.016	0.015		NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR2	16/7/2019	Mid-Ebb	Fine	Moderate	9:08	9	B	8	3		0.13			0.013			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR2	16/7/2019	Mid-Ebb	Fine	Moderate	9:08	9	B	8	3		0.17	0.15		0.016	0.015		NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	16/7/2019	Mid-Ebb	Fine	Moderate	9:38	8	S	1	1	5	0.14			0.015			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	16/7/2019	Mid-Ebb	Fine	Moderate	9:38	8	S	1	2	5	0.13	0.14		0.014	0.014		NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	16/7/2019	Mid-Ebb	Fine	Moderate	9:38	8	S	1	3		0.13			0.014			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	16/7/2019	Mid-Ebb	Fine	Moderate	9:38	8	M	4	1	5	0.14	0.14	0.14	0.014	0.014	0.014	NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	16/7/2019	Mid-Ebb	Fine	Moderate	9:38	8	M	4	2	5	0.14	0.14		0.015	0.014		NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	16/7/2019	Mid-Ebb	Fine	Moderate	9:38	8	M	4	3		0.14			0.015			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	16/7/2019	Mid-Ebb	Fine	Moderate	9:38	8	M	4	3		0.14			0.015			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	16/7/2019	Mid-Ebb	Fine	Moderate	9:38	8	M	4	3		0.14			0.015			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	16/7/2019	Mid-Ebb	Fine	Moderate	9:38	8	B	7	1	5	0.14			0.012			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	16/7/2019	Mid-Ebb	Fine	Moderate	9:38	8	B	7	2	5	0.13	0.14		0.011	0.012		NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	16/7/2019	Mid-Ebb	Fine	Moderate	9:38	8	B	7	3		0.13	0.14		0.011	0.012		NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	16/7/2019	Mid-Ebb	Fine	Moderate	10:00	4	S	1	1	5	0.13	0.12	0.012	0.011	0.009	NA	NA	NA	NA	NA	330	504	653	NA	NA	NA	<1	1	1				
SR4	16/7/2019	Mid-Ebb	Fine	Moderate	10:00	4	S	1	2	4	0.11	0.10	0.010	0.011	0.009	NA	NA	NA	NA	NA	770	504	653	NA	NA	NA	<1	1	1				
SR4	16/7/2019	Mid-Ebb	Fine	Moderate	10:00	4	S	1	3	3	NA	NA	NA	NA	0.009	NA	NA	NA	NA	NA	NA	653	NA	NA	NA	NA	NA	NA	NA	1			
SR4	16/7/2019	Mid-Ebb	Fine	Moderate	10:00	4	M	1	1	1	NA	NA	NA	NA	0.009	NA	NA	NA	NA	NA	NA	NA	653	NA	NA	NA	NA	NA	NA	1			
SR4	16/7/2019	Mid-Ebb	Fine	Moderate	10:00	4	M	2	2	2	NA	NA	NA	NA	0.009	NA	NA	NA	NA	NA	NA	NA	653	NA	NA	NA	NA	NA	NA	1			
SR4	16/7/2019	Mid-Ebb	Fine	Moderate	10:00	4	M	3	3	3	NA	NA	NA	NA	0.009	NA	NA	NA	NA	NA	NA	NA	653	NA	NA	NA	NA	NA	NA	1			
SR4	16/7/2019	Mid-Ebb	Fine	Moderate	10:00	4	B	3	1	3	0.10	0.11	0.007	0.007	0.007	NA	NA	NA	NA	NA	840	845	845	NA	NA	NA	<1	1	1				
SR4	16/7/2019	Mid-Ebb	Fine	Moderate	10:00	4	B	3	2	3	0.12	0.11	0.008	0.007	0.007	NA	NA	NA	NA	NA	850	845	845	NA	NA	NA	<1	1	1				
SR4	16/7/2019	Mid-Ebb	Fine	Moderate	10:00	4	B	3	3	3	NA	NA	NA	NA	0.009	NA	NA	NA	NA	NA	NA	845	845	845	NA	NA	NA	<1	1	1			
SR5	16/7/2019	Mid-Ebb	Fine	Moderate	8:42	11	S	1	1	4	NA	NA	NA	NA	NA	0.08	0.64	0.08	0.80	0.78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR5	16/7/2019	Mid-Ebb	Fine	Moderate	8:42	11	S	1	2	4	NA	NA	NA	NA	NA	0.06	0.63	0.08	0.77	0.78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	16/7/2019	Mid-Ebb	Fine	Moderate	8:42	11	S	1	3	3	NA	NA	NA	NA	NA	0.05	0.65	0.07	0.77	0.79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	16/7/2019	Mid-Ebb	Fine	Moderate	8:42	11	M	5.5	1	4	NA	NA	NA	NA	NA	0.05	0.65	0.07	0.77	0.79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	16/7/2019	Mid-Ebb	Fine	Moderate	8:42	11	M	5.5	2	4	NA	NA	NA	NA	NA	0.07	0.65	0.08	0.80	0.79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	16/7/2019	Mid-Ebb	Fine	Moderate	8:42	11	M	5.5	3	3	NA	NA	NA	NA	NA	0.08	0.65	0.07	0.80	0.79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	16/7/2019	Mid-Ebb	Fine	Moderate	8:42	11	B	10	1	4	NA	NA	NA	NA	NA	0.07	0.65	0.07	0.79	0.79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	16/7/2019	Mid-Ebb	Fine	Moderate	8:42	11	B	10	2	3	NA	NA	NA	NA	NA	0.06	0.65	0.08	0.79	0.79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	16/7/2019	Mid-Ebb	Fine	Moderate	8:42	11	B	10	3	3	NA	NA	NA	NA	NA	0.06	0.65	0.07	0.78	0.79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR12	16/7/2019	Mid-Ebb	Fine	Moderate	10:21	15	S	1	1	3	0.11	0.10	0.008	0.007	0.008	NA	NA	NA	NA	NA	1000	707	703	NA	NA	NA	1	1	1				
SR12	16/7/2019	Mid-Ebb	Fine	Moderate	10:21	15	S	1	2	3	0.09	0.10	0.007	0.007	0.008	NA	NA	NA	NA	NA	500	707	703	NA	NA	NA	<1	1	1				
SR12	16/7/2019	Mid-Ebb	Fine	Moderate	10:21	15	S	1	3	3	NA	NA	NA	NA	0.008	NA	NA	NA	NA	NA	NA	703	NA	NA	NA	NA	NA	NA	NA	1			
SR12	16/7/2019	Mid-Ebb	Fine	Moderate	10:21	15	M	7.5	1	3	0.13	0.13	0.009	0.008	0.008	NA	NA	NA	NA	NA	550	530	703	NA	NA	NA	<1	1	1				
SR12	16/7/2019	Mid-Ebb	Fine	Moderate	10:21	15	M	7.5	2	3	0.12	0.13	0.008	0.008	0.008	NA	NA	NA	NA	NA	510	530	703	NA	NA	NA	<1	1	1				
SR12	16/7/2019	Mid-Ebb	Fine	Moderate	10:21	15	M	7.5	3	3	NA	NA	NA	NA	0.008	NA	NA	NA	NA	NA	NA	530	703	NA	NA	NA	<1	1	1				
SR12	16/7/2019	Mid-Ebb	Fine	Moderate	10:21	15	B	14	1	4	0.12	0.11	0.008	0.007	0.007	NA	NA	NA	NA	NA	1300	926	926	NA	NA	NA	<1	1	1				
SR12	16/7/2019	Mid-Ebb	Fine	Moderate	10:21	15	B	14	2	4	0.09	0.11	0.006	0.007	0.007	NA	NA	NA	NA	NA	660	926	926	NA	NA	NA	1	1	1				
SR12	16/7/2019	Mid-Ebb	Fine	Moderate	10:21	15	B	14	3	3	NA	NA	NA	NA	0.007	NA	NA	NA	NA	NA	NA	926	926	926	NA	NA	NA	<1	1	1			
SR13	16/7/2019	Mid-Ebb	Fine	Moderate	10:39	14	S	1	1	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	16/7/2019	Mid-Ebb	Fine	Moderate	10:39	14	S	1	2	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	16/7/2019	Mid-Ebb	Fine	Moderate	10:39	14	S	1	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	16/7/2019	Mid-Ebb	Fine	Moderate	10:39	14	M	7	1	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	16/7/2019	Mid-Ebb	Fine	Moderate	10:39	14	M	7	2	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	16/7/2019	Mid-Ebb	Fine	Moderate	10:39	14	M	7	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	16/7/2019	Mid-Ebb	Fine	Moderate	10:39	14	B	13	1	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	16/7/2019	Mid-Ebb	Fine	Moderate	10:39	14	B	13	2	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
SR13	16/7/2019	Mid-Ebb	Fine	Moderate	10:39	14	B	13	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.





Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																														
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)		Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)								
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.		
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	S	1	1	8.32	8.32	23.67	23.70	26.98	26.93	69.1	69.2	69.2	69.2	4.83	4.84	4.84	3.1	3.2	3.2	0.16	0.15	0.16	0.017	0.015	0.016	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	S	1	2	8.32	8.32	23.73	23.70	26.88	26.93	69.2	69.2	69.2	69.2	4.84	4.84	4.84	3.2	3.2	3.2	0.16	0.15	0.16	0.017	0.015	0.016	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	S	1	3																															
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	M		1																															
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	M		2																															
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	M		3																															
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	B	3	1	8.19	8.19	26.39	26.40	26.21	26.22	54.5	54.5	54.5	54.5	3.81	3.81	3.81	5.6	5.7	5.7	0.16	0.16	0.16	0.012	0.012	0.012	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	B	3	2	8.19	8.19	26.41	26.40	26.22	26.22	54.5	54.5	54.5	54.5	3.81	3.81	3.81	5.7	5.7	5.7	0.16	0.16	0.16	0.012	0.012	0.012	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	B	3	3																															
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	S	1	1	8.32	8.32	25.16	25.17	27.02	27.02	74.6	74.6	74.6	74.6	5.17	5.17	5.17	1.7	1.7	1.7	NA	NA	NA	NA	NA	NA	0.18	0.56	0.04	0.78	0.78	0.78	0.78	0.78	0.78
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	S	1	2	8.32	8.32	25.18	25.17	27.01	27.02	74.6	74.6	74.6	74.6	5.17	5.17	5.17	1.7	1.7	1.7	NA	NA	NA	NA	NA	NA	0.18	0.56	0.04	0.78	0.78	0.78	0.78	0.78	0.78
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	S	1	3																															
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	M	5.5	1	8.27	8.27	28.11	28.10	26.03	26.03	64.4	64.4	64.4	64.4	4.87	4.87	4.87	1.5	1.5	1.5	NA	NA	NA	NA	NA	NA	0.19	0.57	0.05	0.81	0.81	0.81	0.81	0.81	0.81
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	M	5.5	2	8.27	8.27	28.08	28.10	26.03	26.03	64.3	64.4	64.3	64.4	4.86	4.87	4.87	1.5	1.5	1.5	NA	NA	NA	NA	NA	NA	0.19	0.57	0.05	0.81	0.81	0.81	0.81	0.81	0.81
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	M	5.5	3																															
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	B	10	1	8.20	8.20	30.56	30.55	25.10	25.11	46.7	46.7	46.7	46.7	4.24	4.24	4.24	2.1	2.1	2.1	NA	NA	NA	NA	NA	NA	0.19	0.58	0.05	0.82	0.82	0.82	0.82	0.82	0.82
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	B	10	2	8.20	8.20	30.54	30.55	25.11	25.11	46.7	46.7	46.7	46.7	4.24	4.24	4.24	2.1	2.1	2.1	NA	NA	NA	NA	NA	NA	0.19	0.58	0.05	0.82	0.82	0.82	0.82	0.82	0.82
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	B	10	3																															
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	S	1	1	8.30	8.30	21.85	21.85	27.84	27.84	83.9	83.9	83.9	83.9	5.83	5.83	5.83	1.6	1.6	1.6	0.18	0.18	0.18	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	S	1	2	8.30	8.30	21.84	21.85	27.83	27.84	83.5	83.7	83.5	83.7	5.79	5.81	5.81	1.6	1.6	1.6	0.18	0.18	0.18	0.019	0.019	0.019	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	S	1	3																															
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	M	7.5	1	8.17	8.17	29.79	29.79	25.25	25.25	41.5	41.5	41.5	41.5	2.88	2.88	2.88	2.9	2.9	2.9	0.18	0.18	0.18	0.012	0.012	0.012	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	M	7.5	2	8.17	8.17	29.79	29.79	25.25	25.25	41.5	41.5	41.5	41.5	2.88	2.88	2.88	2.9	2.9	2.9	0.18	0.18	0.18	0.012	0.012	0.012	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	M	7.5	3																															
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	B	14	1	8.15	8.15	30.63	30.64	24.94	24.93	36.4	36.4	36.4	36.4	2.53	2.53	2.53	3.4	3.4	3.4	0.18	0.18	0.18	0.011	0.011	0.011	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	B	14	2	8.15	8.15	30.64	30.64	24.91	24.93	36.4	36.4	36.4	36.4	2.53	2.53	2.53	3.4	3.4	3.4	0.18	0.18	0.18	0.011	0.011	0.011	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	B	14	3																															
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	S	1	1	8.26	8.26	28.34	28.33	26.09	26.09	65.4	65.7	65.4	65.6	4.52	4.55	4.54	2.3	2.3	2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	S	1	2	8.26	8.26	28.32	28.33	26.09	26.09	65.7	65.6	65.7	65.6	4.55	4.54	4.54	2.3	2.3	2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	S	1	3																															
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	M	7	1	8.22	8.22	29.43	29.44	25.41	25.41	49.9	49.9	49.9	49.9	3.96	3.96	3.96	2.2	2.2	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	M	7	2	8.22	8.22	29.45	29.44	25.41	25.41	49.9	49.9	49.9	49.9	3.96	3.96	3.96	2.2	2.2	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	M	7	3																															
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	B	13	1	8.18	8.18	30.36	30.37	25.09	25.09	46.1	46.1	46.1	46.1	3.85	3.85	3.85	3.4	3.4	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	B	13	2	8.18	8.18	30.37	30.37	25.09	25.09	46.1	46.1	46.1	46.1	3.84	3.85	3.85	3.4	3.4	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	B	13	3																															

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
C1A	18/7/2019	Mid-Flood	Fine	Moderate	9:31	28	S	1	1	4	0.17	0.18	0.18	0.016	0.016	0.013	0.17	0.56	0.04	0.77	0.78	0.78	220	311	262	NA	NA	NA	1	1	1		
C1A	18/7/2019	Mid-Flood	Fine	Moderate	9:31	28	S	1	2	5	0.18	0.18	0.18	0.017	0.017	0.013	0.18	0.57	0.04	0.79	0.78	0.78	440	311	262	NA	NA	NA	2	1	1		
C1A	18/7/2019	Mid-Flood	Fine	Moderate	9:31	28	S	1	3	4	0.18	0.18	0.18	0.012	0.012	0.013	0.18	0.56	0.04	0.78	0.79	0.79	240	214	262	NA	NA	NA	1	1	1		
C1A	18/7/2019	Mid-Flood	Fine	Moderate	9:31	28	M	14	1	4	0.18	0.18	0.18	0.012	0.012	0.013	0.18	0.57	0.04	0.79	0.79	0.79	190	214	262	NA	NA	NA	1	1	1		
C1A	18/7/2019	Mid-Flood	Fine	Moderate	9:31	28	M	14	3	4	0.16	0.17	0.17	0.010	0.010	0.011	0.16	0.53	0.04	0.73	0.76	0.76	230	271	262	NA	NA	NA	1	1	1		
C1A	18/7/2019	Mid-Flood	Fine	Moderate	9:31	28	B	27	1	4	0.17	0.17	0.17	0.011	0.011	0.011	0.17	0.56	0.04	0.77	0.76	0.76	320	271	262	NA	NA	NA	1	1	1		
C1A	18/7/2019	Mid-Flood	Fine	Moderate	9:31	28	B	27	3	5	0.39	0.37	0.37	0.031	0.031	0.027	0.39	0.38	0.03	0.80	0.79	0.79	600	471	533	NA	NA	NA	1	1	1		
C2A	18/7/2019	Mid-Flood	Fine	Moderate	6:58	13	S	1	2	4	0.35	0.38	0.38	0.028	0.028	0.027	0.35	0.38	0.03	0.76	0.77	0.77	370	471	533	NA	NA	NA	2	1	1		
C2A	18/7/2019	Mid-Flood	Fine	Moderate	6:58	13	S	1	3	5	0.36	0.39	0.39	0.029	0.029	0.022	0.36	0.38	0.03	0.77	0.77	0.77	480	475	533	NA	NA	NA	2	1	1		
C2A	18/7/2019	Mid-Flood	Fine	Moderate	6:58	13	M	6.5	1	5	0.39	0.38	0.38	0.031	0.031	0.027	0.39	0.38	0.03	0.80	0.77	0.77	470	475	533	NA	NA	NA	1	1	1		
C2A	18/7/2019	Mid-Flood	Fine	Moderate	6:58	13	M	6.5	3	5	0.33	0.35	0.35	0.021	0.021	0.022	0.33	0.38	0.03	0.74	0.74	0.74	460	678	533	NA	NA	NA	1	1	1		
C2A	18/7/2019	Mid-Flood	Fine	Moderate	6:58	13	B	12	2	5	0.37	0.35	0.35	0.023	0.023	0.022	0.37	0.38	0.03	0.78	0.74	0.74	1000	678	533	NA	NA	NA	1	1	1		
C2A	18/7/2019	Mid-Flood	Fine	Moderate	6:58	13	B	12	3	5	0.30	0.35	0.35	0.021	0.021	0.022	0.30	0.38	0.03	0.71	0.74	0.74	1000	678	533	NA	NA	NA	1	1	1		
G2	18/7/2019	Mid-Flood	Fine	Moderate	8:25	12	S	1	1	5	NA	NA	NA	NA	NA	NA	0.19	2.20	0.04	2.43	2.39	2.39	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	18/7/2019	Mid-Flood	Fine	Moderate	8:25	12	S	1	2	5	NA	NA	NA	NA	NA	NA	0.17	2.10	0.04	2.31	2.39	2.39	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	18/7/2019	Mid-Flood	Fine	Moderate	8:25	12	S	1	3	5	NA	NA	NA	NA	NA	NA	0.18	2.20	0.04	2.42	2.39	2.39	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	18/7/2019	Mid-Flood	Fine	Moderate	8:25	12	M	6	1	5	NA	NA	NA	NA	NA	NA	0.18	2.10	0.04	2.32	2.42	2.42	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	18/7/2019	Mid-Flood	Fine	Moderate	8:25	12	M	6	2	5	NA	NA	NA	NA	NA	NA	0.19	2.20	0.04	2.43	2.42	2.42	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	18/7/2019	Mid-Flood	Fine	Moderate	8:25	12	M	6	3	5	NA	NA	NA	NA	NA	NA	0.19	2.20	0.04	2.43	2.42	2.42	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	18/7/2019	Mid-Flood	Fine	Moderate	8:25	12	B	11	1	5	NA	NA	NA	NA	NA	NA	0.19	2.20	0.04	2.43	2.42	2.42	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	18/7/2019	Mid-Flood	Fine	Moderate	8:25	12	B	11	2	5	NA	NA	NA	NA	NA	NA	0.35	2.10	0.04	2.49	2.42	2.42	NA	NA	NA	NA	NA	NA	NA	NA	NA		
G2	18/7/2019	Mid-Flood	Fine	Moderate	8:25	12	B	11	3	5	0.20	0.19	0.19	0.014	0.014	0.014	0.20	2.10	0.04	2.34	2.42	2.42	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	18/7/2019	Mid-Flood	Fine	Moderate	8:40	9	S	1	1	5	0.19	0.20	0.20	0.018	0.018	0.016	0.19	0.19	0.19	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	18/7/2019	Mid-Flood	Fine	Moderate	8:40	9	S	1	2	5	0.20	0.20	0.20	0.019	0.019	0.016	0.20	0.19	0.19	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	18/7/2019	Mid-Flood	Fine	Moderate	8:40	9	S	1	3	5	0.19	0.19	0.19	0.015	0.015	0.016	0.19	0.19	0.19	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	18/7/2019	Mid-Flood	Fine	Moderate	8:40	9	M	4.5	1	5	0.18	0.19	0.19	0.015	0.015	0.016	0.18	0.19	0.19	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	18/7/2019	Mid-Flood	Fine	Moderate	8:40	9	M	4.5	2	4	0.19	0.19	0.19	0.015	0.015	0.016	0.19	0.19	0.19	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	18/7/2019	Mid-Flood	Fine	Moderate	8:40	9	M	4.5	3	5	0.19	0.19	0.19	0.014	0.014	0.014	0.19	0.19	0.19	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	18/7/2019	Mid-Flood	Fine	Moderate	8:40	9	B	8	1	4	0.19	0.19	0.19	0.014	0.014	0.014	0.19	0.19	0.19	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	18/7/2019	Mid-Flood	Fine	Moderate	8:40	9	B	8	2	6	0.19	0.19	0.19	0.014	0.014	0.014	0.19	0.19	0.19	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR2	18/7/2019	Mid-Flood	Fine	Moderate	8:40	9	B	8	3	5	0.19	0.19	0.19	0.014	0.014	0.014	0.19	0.19	0.19	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	18/7/2019	Mid-Flood	Fine	Moderate	8:11	8	S	1	1	5	0.16	0.17	0.17	0.016	0.016	0.014	0.16	0.17	0.17	0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	18/7/2019	Mid-Flood	Fine	Moderate	8:11	8	S	1	2	5	0.17	0.17	0.17	0.017	0.017	0.014	0.17	0.17	0.17	0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	18/7/2019	Mid-Flood	Fine	Moderate	8:11	8	S	1	3	5	0.16	0.17	0.17	0.016	0.016	0.014	0.16	0.17	0.17	0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	18/7/2019	Mid-Flood	Fine	Moderate	8:11	8	M	4	1	5	0.18	0.17	0.17	0.013	0.013	0.014	0.18	0.17	0.17	0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	18/7/2019	Mid-Flood	Fine	Moderate	8:11	8	M	4	2	4	0.18	0.17	0.17	0.015	0.015	0.014	0.18	0.17	0.17	0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	18/7/2019	Mid-Flood	Fine	Moderate	8:11	8	M	4	3	5	0.18	0.17	0.17	0.015	0.015	0.014	0.18	0.17	0.17	0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	18/7/2019	Mid-Flood	Fine	Moderate	8:11	8	B	7	1	5	0.18	0.18	0.18	0.012	0.012	0.012	0.18	0.18	0.18	0.18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	18/7/2019	Mid-Flood	Fine	Moderate	8:11	8	B	7	2	5	0.17	0.18	0.18	0.012	0.012	0.012	0.17	0.18	0.18	0.18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR3	18/7/2019	Mid-Flood	Fine	Moderate	8:11	8	B	7	3	5	0.17	0.18	0.18	0.012	0.012	0.012	0.17	0.18	0.18	0.18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	S	1	1	3	0.14	0.15	0.014	0.015	0.013	NA	NA	NA	NA	NA	1300	974	1006	NA	NA	NA	1	1	1				
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	S	1	2	3	0.16	0.15	0.017	0.015	0.013	NA	NA	NA	NA	NA	730	974	1006	NA	NA	NA	1	1	1				
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	S	1	3	3	0.14	0.15	0.014	0.015	0.013	NA	NA	NA	NA	NA	730	974	1006	NA	NA	NA	1	1	1				
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	M	1	1	1	NA	NA	NA	NA	0.013	NA	NA	NA	NA	NA	NA	1006	NA	NA	NA	NA	NA	NA	NA				
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	M	2	2	2	NA	NA	NA	NA	0.013	NA	NA	NA	NA	NA	NA	1006	NA	NA	NA	NA	NA	NA	NA				
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	M	3	3	3	NA	NA	NA	NA	0.013	NA	NA	NA	NA	NA	NA	1006	NA	NA	NA	NA	NA	NA	NA				
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	B	3	1	3	0.13	0.15	0.010	0.011	0.013	NA	NA	NA	NA	NA	720	1039	1006	NA	NA	NA	1	1	1				
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	B	3	2	3	0.16	0.15	0.012	0.011	0.013	NA	NA	NA	NA	NA	1500	1039	1006	NA	NA	NA	1	1	1				
SR4	18/7/2019	Mid-Flood	Fine	Moderate	7:53	4	B	3	3	3	NA	NA	NA	NA	0.013	NA	NA	NA	NA	NA	NA	1006	NA	NA	NA	NA	NA	NA	NA				
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	S	1	1	5	NA	NA	NA	NA	NA	0.18	0.55	0.04	0.77	0.77	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	S	1	2	5	NA	NA	NA	NA	NA	0.18	0.56	0.04	0.78	0.77	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	S	1	3	3	NA	NA	NA	NA	NA	0.17	0.55	0.04	0.76	0.77	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	M	5.5	1	5	NA	NA	NA	NA	NA	0.18	0.55	0.04	0.77	0.77	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	M	5.5	2	6	NA	NA	NA	NA	NA	0.19	0.55	0.04	0.78	0.77	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	M	5.5	3	3	NA	NA	NA	NA	NA	0.18	0.55	0.04	0.77	0.77	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	B	10	1	5	NA	NA	NA	NA	NA	0.19	0.55	0.04	0.78	0.77	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	B	10	2	6	NA	NA	NA	NA	NA	0.19	0.55	0.04	0.78	0.77	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR5	18/7/2019	Mid-Flood	Fine	Moderate	9:04	11	B	10	3	3	NA	NA	NA	NA	NA	0.17	0.55	0.04	0.76	0.77	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	S	1	1	3	0.16	0.17	0.017	0.018	0.013	NA	NA	NA	NA	NA	400	434	392	NA	NA	NA	1	1	1				
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	S	1	2	3	0.18	0.17	0.019	0.018	0.013	NA	NA	NA	NA	NA	470	434	392	NA	NA	NA	2	1	1				
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	S	1	3	3	NA	NA	NA	NA	0.013	NA	NA	NA	NA	NA	370	370	392	NA	NA	NA	1	1	1				
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	M	7.5	1	3	0.15	0.16	0.010	0.010	0.013	NA	NA	NA	NA	NA	370	370	392	NA	NA	NA	1	1	1				
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	M	7.5	2	4	0.16	0.16	0.010	0.010	0.013	NA	NA	NA	NA	NA	370	370	392	NA	NA	NA	1	1	1				
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	B	14	1	4	0.17	0.18	0.010	0.011	0.013	NA	NA	NA	NA	NA	360	375	392	NA	NA	NA	1	1	1				
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	B	14	2	4	0.18	0.18	0.011	0.011	0.013	NA	NA	NA	NA	NA	390	375	392	NA	NA	NA	2	1	1				
SR12	18/7/2019	Mid-Flood	Fine	Moderate	7:35	15	B	14	3	3	NA	NA	NA	NA	0.013	NA	NA	NA	NA	NA	NA	392	NA	NA	NA	NA	NA	NA	NA				
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	S	1	1	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	S	1	2	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	S	1	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	M	7	1	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	M	7	2	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	M	7	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	B	13	1	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	B	13	2	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SR13	18/7/2019	Mid-Flood	Fine	Moderate	7:16	14	B	13	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																												
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)					
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.			
C1A	18/7/2019	Mid-Ebb	Fine	Moderate	9:38	28	S	1	1	8.26	8.26	26.23	26.24	27.05	27.06	77.2	77.1	5.40	5.39	5.40	1.5	1.5	1.5	1.5	1.5	0.19	0.18	0.19	0.17	0.016	0.017	0.19	0.57	0.03	0.79	0.79	0.80	0.80
C1A	18/7/2019	Mid-Ebb	Fine	Moderate	9:38	28	S	1	3	8.26	8.26	26.25	26.24	27.06	27.06	77.1	77.2	5.39	5.40	5.40	1.6	1.5	1.5	1.5	1.5	0.18	0.18	0.19	0.016	0.017	0.19	0.58	0.03	0.79	0.79	0.80	0.80	
C1A	18/7/2019	Mid-Ebb	Fine	Moderate	9:38	28	M	14	1	8.21	8.21	29.89	29.90	25.32	25.32	49.3	49.3	3.43	3.43	3.43	1.5	1.5	1.5	1.5	1.5	0.19	0.20	0.20	0.013	0.014	0.19	0.57	0.03	0.79	0.79	0.80	0.80	
C1A	18/7/2019	Mid-Ebb	Fine	Moderate	9:38	28	M	14	2	8.21	8.21	29.91	29.90	25.31	25.32	49.3	49.3	3.43	3.43	3.43	1.5	1.5	1.5	1.5	1.5	0.20	0.20	0.20	0.014	0.014	0.20	0.57	0.03	0.80	0.80	0.80	0.80	
C1A	18/7/2019	Mid-Ebb	Fine	Moderate	9:38	28	M	14	3	8.21	8.21	29.91	29.90	25.31	25.32	49.3	49.3	3.43	3.43	3.43	1.5	1.5	1.5	1.5	1.5	0.20	0.20	0.20	0.013	0.013	0.20	0.57	0.03	0.81	0.81	0.81	0.81	
C1A	18/7/2019	Mid-Ebb	Fine	Moderate	9:38	28	B	27	1	8.18	8.18	31.31	31.31	24.85	24.86	45.4	45.4	3.11	3.11	3.11	2.2	2.2	2.2	2.2	2.2	0.20	0.21	0.21	0.013	0.013	0.20	0.57	0.04	0.81	0.81	0.81	0.81	
C1A	18/7/2019	Mid-Ebb	Fine	Moderate	9:38	28	B	27	2	8.18	8.18	31.30	31.31	24.86	24.86	45.3	45.4	3.10	3.11	3.11	2.2	2.2	2.2	2.2	2.2	0.21	0.21	0.21	0.013	0.013	0.21	0.56	0.04	0.81	0.81	0.81	0.81	
C1A	18/7/2019	Mid-Ebb	Fine	Moderate	9:38	28	B	27	3	8.18	8.18	31.30	31.31	24.86	24.86	45.3	45.4	3.10	3.11	3.11	2.2	2.2	2.2	2.2	2.2	0.21	0.21	0.21	0.013	0.013	0.21	0.57	0.04	0.81	0.81	0.81	0.81	
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	S	1	1	8.22	8.22	28.24	28.25	26.88	26.86	80.1	80.1	5.56	5.56	5.56	1.4	1.4	1.4	1.4	1.4	0.40	0.41	0.41	0.032	0.033	0.40	0.38	0.03	0.81	0.82	0.82	0.82	
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	S	1	2	8.22	8.22	28.25	28.25	26.88	26.86	80.1	80.1	5.56	5.56	5.56	1.4	1.4	1.4	1.4	1.4	0.41	0.41	0.41	0.033	0.033	0.41	0.39	0.03	0.83	0.83	0.83	0.83	
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	S	1	3	8.22	8.22	28.25	28.25	26.88	26.86	80.1	80.1	5.56	5.56	5.56	1.4	1.4	1.4	1.4	1.4	0.41	0.41	0.41	0.033	0.033	0.41	0.38	0.03	0.82	0.82	0.82	0.82	
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	M	6.5	1	8.24	8.24	30.11	30.12	25.48	25.48	67.4	67.4	4.66	4.66	4.66	1.5	1.5	1.5	1.5	1.5	0.45	0.45	0.45	0.034	0.034	0.45	0.38	0.03	0.86	0.86	0.86	0.86	
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	M	6.5	2	8.24	8.24	30.12	30.12	25.47	25.48	67.3	67.4	4.65	4.66	4.66	1.5	1.5	1.5	1.5	1.5	0.45	0.45	0.45	0.034	0.034	0.45	0.38	0.03	0.86	0.86	0.86	0.86	
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	M	6.5	3	8.24	8.24	30.12	30.12	25.47	25.48	67.3	67.4	4.65	4.66	4.66	1.5	1.5	1.5	1.5	1.5	0.45	0.45	0.45	0.034	0.034	0.46	0.38	0.03	0.87	0.87	0.87	0.87	
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	B	12	1	8.18	8.18	31.22	31.23	25.04	25.03	52.6	52.6	3.67	3.67	3.67	3.4	3.4	3.4	3.4	3.4	0.40	0.42	0.42	0.026	0.027	0.40	0.40	0.03	0.83	0.84	0.84	0.84	
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	B	12	2	8.18	8.18	31.24	31.23	25.02	25.03	52.5	52.6	3.66	3.67	3.67	3.5	3.4	3.4	3.4	3.4	0.42	0.42	0.42	0.027	0.027	0.42	0.39	0.04	0.85	0.85	0.85	0.85	
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	B	12	3	8.18	8.18	31.24	31.23	25.02	25.03	52.5	52.6	3.66	3.67	3.67	3.5	3.4	3.4	3.4	3.4	0.42	0.42	0.42	0.027	0.027	0.42	0.39	0.04	0.85	0.85	0.85	0.85	
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	S	1	1	8.29	8.29	26.73	26.73	26.45	26.46	70.3	70.4	4.90	4.91	4.91	1.5	1.5	1.5	1.5	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	S	1	2	8.29	8.29	26.73	26.73	26.47	26.46	70.4	70.4	4.91	4.91	4.91	1.5	1.5	1.5	1.5	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	S	1	3	8.29	8.29	26.73	26.73	26.47	26.46	70.4	70.4	4.91	4.91	4.91	1.5	1.5	1.5	1.5	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	M	6	1	8.26	8.26	27.34	27.35	26.08	26.09	63.9	63.9	4.42	4.42	4.42	1.4	1.4	1.4	1.4	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	M	6	2	8.26	8.26	27.35	27.35	26.09	26.09	63.9	63.9	4.42	4.42	4.42	1.4	1.4	1.4	1.4	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	M	6	3	8.26	8.26	27.35	27.35	26.09	26.09	63.9	63.9	4.42	4.42	4.42	1.4	1.4	1.4	1.4	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	B	11	1	8.21	8.21	30.53	30.54	25.11	25.13	47.6	47.6	3.32	3.32	3.32	2.0	2.0	2.0	2.0	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	B	11	2	8.21	8.21	30.54	30.54	25.14	25.13	47.5	47.6	3.31	3.32	3.32	2.0	2.0	2.0	2.0	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	B	11	3	8.21	8.21	30.54	30.54	25.14	25.13	47.5	47.6	3.31	3.32	3.32	2.0	2.0	2.0	2.0	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR2	18/7/2019	Mid-Ebb	Fine	Moderate	10:24	9	S	1	1	8.28	8.28	25.46	25.47	26.83	26.83	76.5	76.5	5.33	5.33	5.33	1.6	1.6	1.6	1.6	1.6	0.21	0.21	0.21	0.020	0.020	NA	NA	NA	NA	NA	NA	NA	NA
SR2	18/7/2019	Mid-Ebb	Fine	Moderate	10:24	9	S	1	2	8.28	8.28	25.47	25.47	26.83	26.83	76.5	76.5	5.33	5.33	5.33	1.6	1.6	1.6	1.6	1.6	0.21	0.21	0.21	0.020	0.020	NA	NA	NA	NA	NA	NA	NA	NA
SR2	18/7/2019	Mid-Ebb	Fine	Moderate	10:24	9	S	1	3	8.28	8.28	25.47	25.47	26.83	26.83	76.5	76.5	5.33	5.33	5.33	1.6	1.6	1.6	1.6	1.6	0.21	0.21	0.21	0.020	0.020	NA	NA	NA	NA	NA	NA	NA	NA
SR2	18/7/2019	Mid-Ebb	Fine	Moderate	10:24	9	M	4.5	1	8.23	8.23	27.41	27.42	26.11	26.12	65.3	65.3	4.55	4.55	4.55	1.6	1.6	1.6	1.6	1.6	0.20	0.20	0.20	0.016	0.016	NA	NA	NA	NA	NA	NA	NA	NA
SR2	18/7/2019	Mid-Ebb	Fine	Moderate	10:24	9	M	4.5	2	8.23	8.23	27.42	27.42	26.12	26.12	65.3	65.3	4.55	4.55	4.55	1.6	1.6	1.6	1.6	1.6	0.20	0.20	0.20	0.016	0.016	NA	NA	NA	NA	NA	NA	NA	NA
SR2	18/7/2019	Mid-Ebb	Fine	Moderate	10:24	9	M	4.5	3	8.23	8.23	27.42	27.42	26.12	26.12	65.3	65.3	4.55	4.55	4.55	1.6	1.6	1.6	1.6	1.6	0.20	0.20	0.20	0.016	0.016	NA	NA	NA	NA	NA	NA	NA	NA
SR2	18/7/2019	Mid-Ebb	Fine	Moderate	10:24	9	B	8	1	8.21	8.21	28.41	28.42	25.75	25.75	52.5	52.5	4.32																				

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																								
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)		Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)		
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	S	1	1	8.31	23.72	26.98	69.4	69.4	4.86	3.2	3.2	0.15	0.15	0.15	0.015	0.015	0.015	NA	NA	NA	NA	NA						
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	S	1	2	8.31	23.75	23.74	26.98	26.98	69.4	69.4	4.86	4.86	4.86	3.2	3.2	0.15	0.15	0.15	NA	NA	NA	NA	NA					
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	S	1	3																									
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	M		1																									
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	M		2																									
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	M		3																									
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	B	3	1	8.18	26.43	26.23	26.23	26.23	54.7	54.7	3.83	3.83	3.83	5.8	5.8	0.17	0.17	0.17	NA	NA	NA	NA	NA					
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	B	3	2	8.18	26.43	26.43	26.23	26.23	54.7	54.7	3.83	3.83	3.83	5.8	5.8	0.17	0.17	0.17	NA	NA	NA	NA	NA					
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	B	3	3																									
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	S	1	1	8.31	25.22	27.03	27.03	27.03	74.8	74.8	5.19	5.19	5.19	1.6	1.6	1.6	1.6	1.6	0.20	0.55	0.04	0.79						
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	S	1	2	8.31	25.21	25.22	27.03	27.03	74.8	74.8	5.19	5.19	5.19	1.6	1.6	1.6	1.6	1.6	0.20	0.56	0.04	0.80						
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	S	1	3																									
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	M	5.5	1	8.27	28.13	26.05	26.05	26.05	64.7	64.7	4.92	4.89	4.89	1.6	1.6	1.6	1.6	1.6	0.20	0.55	0.04	0.79						
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	M	5.5	2	8.27	28.14	28.14	26.07	26.06	64.7	64.7	4.85	4.89	4.89	1.6	1.5	1.5	1.5	1.5	0.19	0.55	0.04	0.78						
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	M	5.5	3																									
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	B	10	1	8.20	30.57	25.14	25.16	25.16	46.8	46.8	4.25	4.25	4.25	2.1	2.1	2.1	2.1	2.1	0.20	0.55	0.05	0.80						
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	B	10	2	8.20	30.58	30.58	25.17	25.16	46.8	46.8	4.25	4.25	4.25	2.1	2.1	2.1	2.1	2.1	0.21	0.55	0.05	0.81						
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	B	10	3																									
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	S	1	1	8.28	22.23	28.09	28.09	28.09	84.6	84.6	5.90	5.90	5.90	1.6	1.6	1.6	1.6	1.6	0.17	0.55	0.05	0.80						
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	S	1	2	8.28	22.24	22.24	28.12	28.11	84.6	84.6	5.90	5.90	5.90	1.6	1.6	1.6	1.6	1.6	0.17	0.17	0.17	0.18						
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	S	1	3																									
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	M	7.5	1	8.16	29.89	25.34	25.36	25.36	42.1	42.1	2.94	2.94	2.94	2.8	2.8	2.8	2.8	2.8	0.19	0.19	0.19	0.18						
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	M	7.5	2	8.16	29.91	29.90	25.37	25.36	42.1	42.1	2.94	2.94	2.94	2.8	2.8	2.8	2.8	2.8	0.19	0.19	0.19	0.18						
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	M	7.5	3																									
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	B	14	1	8.15	30.93	25.02	25.03	25.03	36.7	36.7	2.56	2.56	2.56	3.5	3.5	3.5	3.5	3.5	0.19	0.19	0.19	0.12						
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	B	14	2	8.15	30.96	30.95	25.04	25.03	36.7	36.7	2.56	2.56	2.56	3.5	3.5	3.5	3.5	3.5	0.19	0.19	0.19	0.12						
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	B	14	3																									
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	S	1	1	8.25	28.91	27.17	27.18	27.18	66.2	66.2	4.60	4.60	4.60	2.3	2.3	2.3	2.3	2.3	NA	NA	NA	NA						
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	S	1	2	8.25	28.96	28.94	27.18	27.18	66.2	66.2	4.60	4.60	4.60	2.3	2.3	2.3	2.3	2.3	NA	NA	NA	NA						
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	S	1	3																									
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	M	7	1	8.21	29.97	25.73	25.74	25.74	50.3	50.3	4.89	4.85	4.85	2.3	2.3	2.3	2.3	2.3	NA	NA	NA	NA						
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	M	7	2	8.21	29.98	29.98	25.74	25.74	50.3	50.3	4.80	4.85	4.85	2.3	2.3	2.3	2.3	2.3	NA	NA	NA	NA						
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	M	7	3																									
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	B	13	1	8.18	30.82	25.31	25.30	25.30	46.5	46.5	3.74	3.75	3.75	3.4	3.4	3.4	3.4	3.4	NA	NA	NA	NA						
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	B	13	2	8.18	30.85	30.84	25.28	25.30	46.6	46.6	3.75	3.75	3.75	3.4	3.4	3.4	3.4	3.4	NA	NA	NA	NA						
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	B	13	3																									

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																													
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)			TIN-Nitrate (mg/L-N)			TIN-Nitrite (mg/L-N)			Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.			
C1A	18/7/2019	Mid-Ebb	Fine	Moderate	9:38	28	S	1	1	4	0.23	0.23	0.021	0.021	0.018	0.021	0.23	0.58	0.04	0.85	0.17	0.53	0.04	0.74	0.79	270	312	299	NA	NA	NA	2							
C1A	18/7/2019	Mid-Ebb	Fine	Moderate	9:38	28	S	1	2	4	0.17	0.20	0.015	0.018	0.014	0.015	0.17	0.56	0.04	0.78	0.18	0.56	0.04	0.78	0.78	270	270	299	NA	NA	NA	1	2						
C1A	18/7/2019	Mid-Ebb	Fine	Moderate	9:38	28	S	1	3								0.18	0.56	0.04	0.78	0.18	0.56	0.04	0.78	0.78	270	270	299	NA	NA	NA	2							
C1A	18/7/2019	Mid-Ebb	Fine	Moderate	9:38	28	M	14	1	5	0.18	0.19	0.013	0.013	0.014	0.013	0.18	0.56	0.04	0.78	0.19	0.56	0.04	0.79	0.78	270	270	299	NA	NA	NA	2	2	2					
C1A	18/7/2019	Mid-Ebb	Fine	Moderate	9:38	28	M	14	3								0.18	0.56	0.04	0.78	0.16	0.54	0.04	0.74	0.78	290			NA	NA	NA	2							
C1A	18/7/2019	Mid-Ebb	Fine	Moderate	9:38	28	B	27	1	4	0.16	0.18	0.010	0.012	0.014	0.010	0.16	0.54	0.04	0.74	0.20	0.57	0.04	0.81	0.78	350	319	299	NA	NA	NA	2	2						
C1A	18/7/2019	Mid-Ebb	Fine	Moderate	9:38	28	B	27	3	4	0.20		0.013			0.013	0.20	0.57	0.04	0.81	0.18	0.56	0.04	0.78				NA	NA	NA									
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	S	1	1	4	0.49	0.44	0.040	0.035	0.032	0.040	0.49	0.39	0.03	0.91	0.38	0.38	0.03	0.79	0.83	660	665	681	NA	NA	NA	1	1						
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	S	1	2	3	0.38		0.031			0.031	0.38	0.38	0.03	0.79	0.38	0.37	0.03	0.78				NA	NA	NA									
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	S	1	3								0.49	0.38	0.03	0.90	0.38	0.37	0.03	0.78				NA	NA	NA									
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	M	6.5	1	4	0.49	0.48	0.037	0.037	0.032	0.037	0.49	0.38	0.03	0.90	0.47	0.38	0.03	0.88	0.88	590	595	681	NA	NA	NA	1	1	2					
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	M	6.5	2	5	0.47		0.036			0.036	0.47	0.38	0.03	0.88	0.45	0.38	0.03	0.86				NA	NA	NA									
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	M	6.5	3								0.38	0.37	0.03	0.78	0.35	0.37	0.03	0.75	0.77	580	799	681	NA	NA	NA	2							
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	B	12	1	6	0.35	0.37	0.023	0.024	0.024	0.023	0.35	0.37	0.03	0.75	0.38	0.37	0.03	0.78				NA	NA	NA	2	2							
C2A	18/7/2019	Mid-Ebb	Fine	Moderate	12:01	13	B	12	3								0.18	2.10	0.04	2.32	0.19	2.10	0.03	2.32	2.35	NA	NA	NA	NA	NA	NA	NA	NA						
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	S	1	1	6	NA	NA	NA	NA	NA	NA	0.18	2.10	0.04	2.32	0.18	2.20	0.04	2.42	2.38	NA	NA	NA	NA	NA	NA	NA	NA						
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	S	1	2	6	NA	NA	NA	NA	NA	NA	0.18	2.10	0.03	2.42	0.18	2.20	0.03	2.42	2.38	NA	NA	NA	NA	NA	NA	NA	NA						
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	S	1	3								0.18	2.20	0.04	2.42	0.18	2.20	0.04	2.42	2.37	NA	NA	NA	NA	NA	NA	NA	NA						
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	M	6	1	6	NA	NA	NA	NA	NA	NA	0.18	2.10	0.03	2.31	0.19	2.10	0.04	2.33	2.37	NA	NA	NA	NA	NA	NA	NA	NA						
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	M	6	2	6	NA	NA	NA	NA	NA	NA	0.20	2.10	0.04	2.34	0.20	2.10	0.04	2.34	2.37	NA	NA	NA	NA	NA	NA	NA	NA						
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	M	6	3								0.19	2.10	0.04	2.33	0.20	2.10	0.04	2.34	2.37	NA	NA	NA	NA	NA	NA	NA	NA						
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	B	11	1	5	NA	NA	NA	NA	NA	NA	0.20	2.10	0.04	2.34	0.20	2.10	0.04	2.34	2.37	NA	NA	NA	NA	NA	NA	NA	NA						
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	B	11	2	6	NA	NA	NA	NA	NA	NA	0.20	2.10	0.04	2.34	0.20	2.10	0.04	2.34	2.37	NA	NA	NA	NA	NA	NA	NA	NA						
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	B	11	3								0.18	2.10	0.04	2.32	0.19	2.10	0.03	2.32	2.35	NA	NA	NA	NA	NA	NA	NA	NA						
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	M	6	1	6	NA	NA	NA	NA	NA	NA	0.18	2.10	0.04	2.32	0.18	2.20	0.04	2.42	2.38	NA	NA	NA	NA	NA	NA	NA	NA						
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	M	6	2	6	NA	NA	NA	NA	NA	NA	0.18	2.10	0.03	2.42	0.18	2.20	0.04	2.42	2.38	NA	NA	NA	NA	NA	NA	NA	NA						
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	M	6	3								0.18	2.10	0.03	2.31	0.19	2.10	0.04	2.33	2.37	NA	NA	NA	NA	NA	NA	NA	NA						
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	B	11	1	5	NA	NA	NA	NA	NA	NA	0.19	2.10	0.04	2.33	0.20	2.10	0.04	2.34	2.37	NA	NA	NA	NA	NA	NA	NA	NA						
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	B	11	2	6	NA	NA	NA	NA	NA	NA	0.20	2.10	0.04	2.34	0.20	2.10	0.04	2.34	2.37	NA	NA	NA	NA	NA	NA	NA	NA						
G2	18/7/2019	Mid-Ebb	Fine	Moderate	10:38	12	B	11	3								0.18	2.10	0.04	2.32	0.19	2.10	0.03	2.32	2.35	NA	NA	NA	NA	NA	NA	NA	NA						
SR2	18/7/2019	Mid-Ebb	Fine	Moderate	10:24	9	S	1	1	6	0.19	0.20	0.018	0.018	0.016	0.018	0.19	0.20	0.04	0.16	0.19	0.20	0.04	0.16	NA	NA	NA	NA	NA	NA	NA	NA							
SR2	18/7/2019	Mid-Ebb	Fine	Moderate	10:24	9	S	1	2	6	0.20		0.019			0.019	0.20	0.20	0.04	0.16	0.19	0.20	0.04	0.16	NA	NA	NA	NA	NA	NA	NA	NA							
SR2	18/7/2019	Mid-Ebb	Fine	Moderate	10:24	9	S	1	3								0.19	0.20	0.04	0.16	0.19	0.20	0.04	0.16	NA	NA	NA	NA	NA	NA	NA	NA							
SR2	18/7/2019	Mid-Ebb	Fine	Moderate	10:24	9	M	4.5	1	5	0.19	0.19	0.015	0.015	0.016	0.015	0.19	0.19	0.04	0.16	0.19	0.19	0.04	0.16	NA	NA	NA	NA	NA	NA	NA	NA							
SR2	18/7/2019	Mid-Ebb	Fine	Moderate	10:24	9	M	4.5	2	5	0.19		0.015			0.015	0.19	0.19	0.04	0.16	0.19	0.19	0.04	0.16	NA	NA	NA	NA	NA	NA	NA	NA							
SR2	18/7/2019	Mid-Ebb	Fine	Moderate	10:24	9	M	4.5	3								0.19	0.19	0.04	0.16	0.19	0.19	0.04	0.16	NA	NA	NA	NA	NA	NA	NA	NA							
SR2	18/7/2019	Mid-Ebb	Fine	Moderate	10:24	9	B	8	1	5	0.19	0.20	0.014	0.014	0.014	0.014	0.19	0.20	0.04	0.16	0.20	0.20	0.04	0.16	NA	NA	NA	NA	NA	NA	NA	NA							
SR2	18/7/2019	Mid-Ebb	Fine	Moderate	10:24	9	B	8	2	5	0.20		0.015			0.015	0.20	0.20	0.04	0.16	0.20	0.20	0.04	0.16	NA	NA	NA	NA	NA	NA	NA	NA							
SR2	18/7/2019	Mid-Ebb	Fine	Moderate	10:24	9	B	8	3								0.19	0.19	0.04	0.16	0.19	0.19	0.04	0.16	NA	NA	NA	NA	NA	NA	NA	NA							
SR3	18/7/2019	Mid-Ebb	Fine	Moderate	10:52	8	S	1	1	5	0.16	0.16	0.016	0.016	0.014	0.016	0.16	0.16	0.04	0.16	0.16	0.16	0.04	0.16	NA	NA	NA	NA	NA	NA	NA	NA							
SR3	18/7/2019	Mid-Ebb	Fine	Moderate	10:52	8	S	1	2	4	0.16		0.016			0.016	0.16	0.16	0.04	0.16	0.16	0.16	0.04	0.16	NA	NA	NA	NA	NA	NA	NA	NA							
SR3	18/7/2019	Mid-Ebb	Fine	Moderate	10:52	8	S	1	3								0.19	0.18	0.04	0.16	0.19	0.18	0.04	0.16	NA	NA	NA	NA	NA	NA	NA	NA							
SR3	18/7/2019	Mid-Ebb	Fine	Moderate	10:52	8	M	4	1	5	0.18	0.19	0.015	0.015	0.014	0.015	0.18	0.19	0.04	0.16	0.18	0.19	0.04	0.16	NA	NA	NA	NA	NA	NA	NA	NA							
SR3	18/7/2019	Mid-Ebb	Fine	Moderate	10:52	8	M	4	2	4	0.18		0.014			0.014	0.18	0.19	0.04	0.16	0.18	0.19	0.04	0.16	NA	NA	NA	NA	NA	NA	NA	NA							
SR3	18/7/2019	Mid-Ebb	Fine	Moderate	10:52	8	M	4	3								0.18	0.18	0.04	0.16	0.18	0.18	0.04	0.16	NA	NA	NA	NA	NA	NA	NA	NA							
SR3	18/7/2019	Mid-Ebb	Fine	Moderate	10:52	8	M	4	4								0.18	0.18	0.04	0.16	0.18	0.18	0.04	0.16	NA	NA	NA	NA	NA	NA	NA	NA							
SR3	18/7/2019	Mid-Ebb	Fine	Moderate	10:52	8	B	7	1	5	0.18	0.17	0.012	0.012	0.012	0.012	0																						

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	S	1	1	4	0.15	0.15	0.15	0.015	0.015	0.015	0.013	NA	NA	NA	NA	NA	1200	827	737	NA	NA	NA	2	1	1	1	
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	S	1	2	3	0.14	0.15	0.16	0.014	0.015	0.016	0.013	NA	NA	NA	NA	NA	570	827	737	NA	NA	NA	1	1	1	1	
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	S	1	3	3	0.15	0.15	0.16	0.015	0.015	0.016	0.013	NA	NA	NA	NA	NA	570	827	737	NA	NA	NA	1	1	1	1	
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	M	1	1	1	0.15	0.15	0.16	0.015	0.015	0.016	0.013	NA	NA	NA	NA	NA	570	827	737	NA	NA	NA	1	1	1	1	
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	M	2	2	2	0.15	0.15	0.16	0.015	0.015	0.016	0.013	NA	NA	NA	NA	NA	570	827	737	NA	NA	NA	1	1	1	1	
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	M	3	3	3	0.15	0.15	0.16	0.015	0.015	0.016	0.013	NA	NA	NA	NA	NA	570	827	737	NA	NA	NA	1	1	1	1	
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	B	3	2	3	0.16	0.17	0.17	0.012	0.012	0.012	0.012	NA	NA	NA	NA	NA	720	657	657	NA	NA	NA	1	1	1	1	
SR4	18/7/2019	Mid-Ebb	Fine	Moderate	11:05	4	B	3	3	3	0.17	0.17	0.17	0.012	0.012	0.012	0.012	NA	NA	NA	NA	NA	600	657	657	NA	NA	NA	1	1	1	1	
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	S	1	1	5	NA	NA	NA	NA	NA	NA	NA	0.19	0.56	0.04	0.79	0.78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	S	1	2	5	NA	NA	NA	NA	NA	NA	NA	0.19	0.55	0.04	0.78	0.78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	S	1	3	5	NA	NA	NA	NA	NA	NA	NA	0.20	0.54	0.04	0.78	0.78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	M	5.5	1	5	NA	NA	NA	NA	NA	NA	NA	0.17	0.54	0.04	0.75	0.77	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	M	5.5	2	5	NA	NA	NA	NA	NA	NA	NA	0.19	0.55	0.04	0.78	0.77	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	M	5.5	3	5	NA	NA	NA	NA	NA	NA	NA	0.18	0.55	0.04	0.77	0.78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	B	10	1	5	NA	NA	NA	NA	NA	NA	NA	0.19	0.55	0.04	0.78	0.78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	B	10	2	6	NA	NA	NA	NA	NA	NA	NA	0.19	0.54	0.04	0.77	0.78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	18/7/2019	Mid-Ebb	Fine	Moderate	7:59	11	B	10	3	6	NA	NA	NA	NA	NA	NA	NA	0.19	0.55	0.04	0.78	0.78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	S	1	1	3	0.17	0.17	0.18	0.018	0.017	0.017	0.013	NA	NA	NA	NA	NA	660	961	685	NA	NA	NA	1	1	1	1	
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	S	1	2	3	0.16	0.17	0.18	0.017	0.017	0.017	0.013	NA	NA	NA	NA	NA	1400	961	685	NA	NA	NA	1	1	1	1	
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	S	1	3	3	0.17	0.17	0.18	0.017	0.017	0.017	0.013	NA	NA	NA	NA	NA	660	961	685	NA	NA	NA	1	1	1	1	
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	M	7.5	1	3	0.19	0.19	0.19	0.012	0.012	0.012	0.013	NA	NA	NA	NA	NA	380	432	685	NA	NA	NA	<1	1	1	1	
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	M	7.5	2	3	0.18	0.19	0.19	0.011	0.012	0.012	0.013	NA	NA	NA	NA	NA	490	432	685	NA	NA	NA	1	1	1	1	
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	M	7.5	3	3	0.18	0.19	0.19	0.011	0.012	0.012	0.013	NA	NA	NA	NA	NA	600	432	685	NA	NA	NA	1	1	1	1	
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	B	14	1	3	0.18	0.18	0.18	0.011	0.011	0.011	0.011	NA	NA	NA	NA	NA	1000	775	775	NA	NA	NA	1	1	1	1	
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	B	14	2	3	0.18	0.18	0.18	0.011	0.011	0.011	0.011	NA	NA	NA	NA	NA	600	775	775	NA	NA	NA	1	1	1	1	
SR12	18/7/2019	Mid-Ebb	Fine	Moderate	11:29	15	B	14	3	3	0.18	0.18	0.18	0.011	0.011	0.011	0.011	NA	NA	NA	NA	NA	600	775	775	NA	NA	NA	1	1	1	1	
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	S	1	1	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	S	1	2	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	S	1	3	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	M	7	1	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	M	7	2	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	M	7	3	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	B	13	1	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	B	13	2	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	18/7/2019	Mid-Ebb	Fine	Moderate	11:42	14	B	13	3	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																									
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)		
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	S	1	1	8.14	24.76	24.78	25.48	25.48	86.7	86.8	6.29	6.30	0.9	1.0	0.58	0.59	0.59	0.037	0.037	0.037	0.58	0.69	0.04	1.31	1.31	1.33			
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	S	1	2	8.13	24.79	24.78	25.47	25.48	86.9	86.8	6.31	6.30	1.1	1.0	0.59	0.59	0.59	0.037	0.037	0.037	0.59	0.69	0.04	1.32	1.31	1.33			
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	S	1	3																	0.58	0.68	0.04	1.30						
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	M	14	1	8.15	24.92	24.94	25.20	25.19	80.2	80.1	5.82	5.81	1.7	1.8	0.58	0.58	0.58	0.037	0.037	0.037	0.58	0.70	0.04	1.32	1.32	1.33			
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	M	14	2	8.14	24.95	24.94	25.18	25.19	80.0	80.1	5.80	5.81	1.9	1.8	0.58	0.58	0.58	0.037	0.037	0.037	0.58	0.69	0.04	1.31	1.32	1.33			
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	M	14	3																	0.58	0.70	0.04	1.32						
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	B	27	1	8.16	25.10	25.12	25.02	25.01	72.1	71.9	5.23	5.21	3.6	3.8	0.59	0.59	0.59	0.038	0.038	0.038	0.59	0.71	0.05	1.35	1.35	1.35			
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	B	27	2	8.17	25.14	25.12	25.00	25.01	71.7	71.9	5.19	5.21	3.9	3.8	0.59	0.59	0.59	0.038	0.038	0.038	0.59	0.71	0.05	1.35	1.35	1.35			
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	B	27	3																	0.59	0.71	0.05	1.35						
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	S	1	1	8.08	29.48	29.46	25.46	25.46	79.4	79.5	5.51	5.52	1.2	1.2	1.11	1.12	1.12	0.060	0.060	0.060	1.11	0.27	0.02	1.40	1.40	1.42			
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	S	1	2	8.08	29.48	29.46	25.45	25.46	79.6	79.5	5.53	5.52	1.1	1.2	1.12	1.12	1.12	0.061	0.060	0.060	1.12	0.26	0.02	1.40	1.40	1.42			
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	S	1	3																	1.10	0.27	0.02	1.39						
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	M	6.5	1	8.09	29.84	29.85	25.31	25.32	74.3	74.5	5.50	5.53	1.5	1.6	1.12	1.13	1.13	0.062	0.062	0.062	1.12	0.27	0.02	1.41	1.41	1.42			
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	M	6.5	2	8.10	29.86	29.85	25.32	25.32	74.6	74.5	5.17	5.34	1.6	1.6	1.13	1.13	1.13	0.063	0.062	0.062	1.13	0.27	0.02	1.42	1.41	1.42			
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	M	6.5	3																	1.12	0.27	0.02	1.41						
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	B	12	1	8.09	30.26	30.25	25.17	25.17	69.2	69.4	4.80	4.81	2.3	2.3	1.15	1.15	1.15	0.062	0.062	0.062	1.15	0.28	0.03	1.46	1.45	1.45			
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	B	12	2	8.09	30.23	30.25	25.17	25.17	69.5	69.4	4.82	4.81	2.2	2.3	1.14	1.15	1.15	0.062	0.062	0.062	1.14	0.28	0.03	1.45	1.45	1.45			
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	B	12	3																	1.14	0.27	0.03	1.44						
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	S	1	1	8.18	23.56	23.55	27.30	27.30	86.1	86.3	6.04	6.06	1.9	1.8	NA	NA	NA	NA	NA	NA	0.72	2.51	0.04	3.27	3.27	3.29			
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	S	1	2	8.19	23.54	23.55	27.29	27.30	86.4	86.3	6.07	6.06	1.7	1.8	NA	NA	NA	NA	NA	NA	0.72	2.52	0.04	3.28	3.27	3.29			
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	S	1	3																	0.70	2.52	0.04	3.26						
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	M	6	1	8.20	23.79	23.81	27.11	27.11	83.2	83.0	5.83	5.81	2.6	2.6	NA	NA	NA	NA	NA	NA	0.71	2.53	0.04	3.29	3.28	3.29			
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	M	6	2	8.21	23.82	23.81	27.10	27.11	82.7	83.0	5.79	5.81	2.5	2.6	NA	NA	NA	NA	NA	NA	0.71	2.53	0.04	3.28	3.28	3.29			
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	M	6	3																	0.71	2.53	0.04	3.28						
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	B	11	1	8.21	24.06	24.08	26.99	26.99	78.9	78.8	5.53	5.53	3.2	3.3	NA	NA	NA	NA	NA	NA	0.72	2.55	0.05	3.32	3.32	3.32			
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	B	11	2	8.21	24.09	24.08	26.98	26.99	78.7	78.8	5.52	5.53	3.3	3.3	NA	NA	NA	NA	NA	NA	0.72	2.55	0.05	3.32	3.32	3.32			
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	B	11	3																	0.71	2.55	0.05	3.31						
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	S	1	1	8.20	23.73	23.72	27.12	27.12	86.8	86.7	6.11	6.10	2.0	2.1	0.83	0.83	0.83	0.068	0.068	0.068	NA	NA	NA	NA	NA	NA			
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	S	1	2	8.20	23.70	23.72	27.11	27.12	86.5	86.7	6.08	6.10	2.2	2.1	0.83	0.83	0.83	0.068	0.068	0.068	NA	NA	NA	NA	NA	NA			
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	S	1	3																	NA	NA	NA	NA	NA	NA				
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	M	4.5	1	8.21	23.98	24.00	27.02	27.03	82.3	82.2	5.79	5.78	2.7	2.8	0.86	0.86	0.86	0.070	0.070	0.070	NA	NA	NA	NA	NA	NA			
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	M	4.5	2	8.20	24.01	24.00	27.03	27.03	82.0	82.2	5.77	5.78	2.8	2.8	0.86	0.86	0.86	0.070	0.070	0.070	NA	NA	NA	NA	NA	NA			
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	M	4.5	3																	NA	NA	NA	NA	NA	NA				
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	B	8	1	8.22	24.29	24.31	26.93	26.94	78.6	78.8	5.53	5.54	3.3	3.4	0.80	0.82	0.81	0.066	0.068	0.067	NA	NA	NA	NA	NA	NA			
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	B	8	2	8.21	24.32	24.31	26.94	26.94	78.9	78.8	5.55	5.54	3.4	3.4	0.82	0.82	0.81	0.068	0.068	0.067	NA	NA	NA	NA	NA	NA			
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	B	8	3																	NA	NA	NA	NA	NA	NA				
SR3	20/7/2019	Mid-Flood	Fine	Moderate	8:55	8	S	1	1	8.17	24.97	24.96	27.17	27.16	87.2	87.0	6.09	6.08	1.5	1.6	0.77	0.78	0.78	0.059	0.060	0.059	NA	NA	NA	NA	NA	NA			
SR3	20/7/2019	Mid-Flood	Fine	Moderate	8:55	8	S	1	2	8.18	24.94	24.96	27.15	27.16	87.0	87.1	6.07	6.08	1.6	1.6	0.78	0.78	0.78	0.060	0.060	0.060	NA	NA	NA	NA	NA	NA			
SR3	20/7/2019	Mid-Flood	Fine	Moderate	8:55	8	S	1	3																	NA	NA	NA	NA	NA	NA				
SR3	20/7/2019	Mid-Flood	Fine	Moderate	8:55	8	M	4	1	8.20	25.17	25.16	27.03	27.03	83.1	83.3	5.80	5.82	2.8	2.9	0.81	0.82	0.81	0.064	0.065	0.064	NA	NA	NA	NA	NA	NA			
SR3	20/7/2019	Mid-Flood	Fine	Moderate	8:55	8	M	4	2	8.19	25.15	25.16	27.02	27.03	83.4	83.3	5.83	5.82	3.0	2.9	0.82	0.82	0.81	0.065	0.065	0.065	NA	NA	NA	NA	NA	NA			
SR3	20/7/2019	Mid-Flood	Fine	Moderate	8:55	8	M	4																											



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	S	1	1	3	0.56			0.035			0.56	0.68	0.04	1.28			610			NA			2				
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	S	1	2	2	0.59	0.58		0.037	0.036		0.59	0.68	0.04	1.31	1.32		580	595		NA	NA		2	2			
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	S	1	3							0.64	0.68	0.04	1.36						NA	NA							
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	M	14	1	3	0.58			0.037			0.58	0.69	0.04	1.31	1.31		570			NA			2				
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	M	14	2	3	0.52	0.55	0.56	0.033	0.035	0.036	0.52	0.68	0.04	1.24	1.30		530	550	566	NA	NA	NA	2	2	2		
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	M	14	3							0.67	0.68	0.04	1.39						NA								
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	B	27	1	3	0.51			0.033			0.51	0.67	0.04	1.22	1.27		540			NA			2				
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	B	27	2	3	0.59	0.55		0.038	0.036		0.59	0.68	0.04	1.31	1.30		570	555		NA	NA		2	2			
C1A	20/7/2019	Mid-Flood	Fine	Moderate	10:04	28	B	27	3							0.58	0.67	0.04	1.29						NA								
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	S	1	1	3	1.10			0.060	0.060		1.10	0.26	0.02	1.38	1.35		5000	4637		NA			1				
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	S	1	2	2	1.10	1.10		0.060	0.060		1.10	0.26	0.02	1.38	1.39		4300			NA	NA		1	1			
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	S	1	3							1.00	0.26	0.02	1.28						NA								
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	M	6.5	1	3	1.10			0.061			1.10	0.26	0.02	1.38	1.38		5100			NA			1				
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	M	6.5	2	3	1.10	1.10	1.13	0.061	0.061	0.062	1.10	0.26	0.02	1.38	1.39		3100	3976	3849	NA	NA	NA	1	1	1		
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	M	6.5	3							1.10	0.26	0.02	1.38						NA								
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	B	12	1	3	1.30			0.070			1.30	0.26	0.02	1.58	1.45		3300			NA			1				
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	B	12	2	3	1.10	1.20		0.060	0.065		1.10	0.27	0.02	1.39	1.45		2900	3094		NA	NA		1	1			
C2A	20/7/2019	Mid-Flood	Fine	Moderate	7:30	13	B	12	3							1.10	0.26	0.02	1.38						NA								
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	S	1	1	3	NA			NA	NA		0.71	2.50	0.04	3.25	3.24		NA	NA		NA	NA		NA	NA			
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	S	1	2	2	NA	NA		NA	NA		0.71	2.50	0.04	3.25	3.30		NA	NA		NA	NA		NA	NA			
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	S	1	3							0.69	2.50	0.04	3.23						NA								
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	M	6	1	2	NA			NA	NA	NA	0.69	2.60	0.04	3.33	3.30		NA	NA	NA	NA	NA		NA	NA			
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	M	6	2	3	NA	NA	NA	NA	NA	NA	0.79	2.50	0.04	3.33	3.27		NA	NA	NA	NA	NA		NA	NA			
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	M	6	3							0.69	2.50	0.04	3.23						NA								
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	B	11	1	3	NA			NA	NA		0.70	2.60	0.04	3.34					NA								
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	B	11	2	3	NA	NA		NA	NA		0.70	2.50	0.04	3.24	3.27		NA	NA		NA	NA		NA	NA			
G2	20/7/2019	Mid-Flood	Fine	Moderate	9:08	12	B	11	3							0.71	2.50	0.03	3.24						NA								
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	S	1	1	3	0.82			0.067			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	S	1	2	3	0.83	0.83		0.068	0.067		NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	S	1	3							NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA				
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	M	4.5	1	3	0.86			0.070			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	M	4.5	2	3	0.88	0.87	0.84	0.072	0.071	0.068	NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	M	4.5	3							NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA				
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	B	8	1	3	0.79			0.065			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	B	8	2	3	0.83	0.81		0.069	0.067		NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR2	20/7/2019	Mid-Flood	Fine	Moderate	9:23	9	B	8	3							NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA				
SR3	20/7/2019	Mid-Flood	Fine	Moderate	8:55	8	S	1	1	3	0.87			0.067			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	20/7/2019	Mid-Flood	Fine	Moderate	8:55	8	S	1	2	2	0.77	0.82		0.059	0.063		NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	20/7/2019	Mid-Flood	Fine	Moderate	8:55	8	S	1	3							NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA				
SR3	20/7/2019	Mid-Flood	Fine	Moderate	8:55	8	M	4	1	3	0.80			0.063			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	20/7/2019	Mid-Flood	Fine	Moderate	8:55	8	M	4	2	3	0.86	0.83	0.83	0.068	0.066	0.066	NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	20/7/2019	Mid-Flood	Fine	Moderate	8:55	8	M	4	3							NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA				
SR3	20/7/2019	Mid-Flood	Fine	Moderate	8:55	8	B	7	1	3	0.85			0.069			NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	20/7/2019	Mid-Flood	Fine	Moderate	8:55	8	B	7	2	3	0.83	0.84		0.067	0.068		NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA			
SR3	20/7/2019	Mid-Flood	Fine	Moderate	8:55	8	B	7	3							NA	NA	NA	NA	NA		NA	NA		NA	NA		NA	NA				

Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
SR4	20/7/2019	Mid-Flood	Fine	Moderate	8:37	4	S	1	1	2	0.97	0.94	0.96	0.077	0.074	0.076	NA	NA	NA	NA	NA	NA	2400	1700	2020	NA	NA	NA	1	1	1		
SR4	20/7/2019	Mid-Flood	Fine	Moderate	8:37	4	S	1	2	2	0.97	0.94	0.96	0.077	0.074	0.076	NA	NA	NA	NA	NA	NA	2400	1700	2020	NA	NA	NA	1	1	1		
SR4	20/7/2019	Mid-Flood	Fine	Moderate	8:37	4	S	1	3	3	0.97	0.94	0.96	0.077	0.074	0.076	NA	NA	NA	NA	NA	NA	2400	1700	2020	NA	NA	NA	1	1	1		
SR4	20/7/2019	Mid-Flood	Fine	Moderate	8:37	4	M	1	1	1	0.97	0.94	0.96	0.077	0.074	0.076	NA	NA	NA	NA	NA	NA	2400	1700	2020	NA	NA	NA	1	1	1		
SR4	20/7/2019	Mid-Flood	Fine	Moderate	8:37	4	M	2	2	2	0.97	0.94	0.96	0.077	0.074	0.076	NA	NA	NA	NA	NA	NA	2400	1700	2020	NA	NA	NA	1	1	1		
SR4	20/7/2019	Mid-Flood	Fine	Moderate	8:37	4	M	3	3	3	0.97	0.94	0.96	0.077	0.074	0.076	NA	NA	NA	NA	NA	NA	2400	1700	2020	NA	NA	NA	1	1	1		
SR4	20/7/2019	Mid-Flood	Fine	Moderate	8:37	4	B	3	2	2	0.92	0.94	0.93	0.076	0.077	0.076	NA	NA	NA	NA	NA	NA	2000	2000	2000	NA	NA	NA	<1	<1	1		
SR4	20/7/2019	Mid-Flood	Fine	Moderate	8:37	4	B	3	3	3	0.92	0.94	0.93	0.076	0.077	0.076	NA	NA	NA	NA	NA	NA	2000	2000	2000	NA	NA	NA	<1	<1	1		
SR5	20/7/2019	Mid-Flood	Fine	Moderate	9:42	11	S	1	1	4	NA	NA	NA	NA	NA	NA	0.58	0.70	0.04	1.32	1.35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	20/7/2019	Mid-Flood	Fine	Moderate	9:42	11	S	1	2	3	NA	NA	NA	NA	NA	NA	0.61	0.70	0.04	1.35	1.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR5	20/7/2019	Mid-Flood	Fine	Moderate	9:42	11	S	1	3	3	NA	NA	NA	NA	NA	NA	0.64	0.70	0.04	1.38	1.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	20/7/2019	Mid-Flood	Fine	Moderate	9:42	11	M	5.5	1	3	NA	NA	NA	NA	NA	NA	0.66	0.70	0.04	1.40	1.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	20/7/2019	Mid-Flood	Fine	Moderate	9:42	11	M	5.5	2	3	NA	NA	NA	NA	NA	NA	0.64	0.69	0.04	1.37	1.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	20/7/2019	Mid-Flood	Fine	Moderate	9:42	11	M	5.5	3	3	NA	NA	NA	NA	NA	NA	0.62	0.70	0.04	1.36	1.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	20/7/2019	Mid-Flood	Fine	Moderate	9:42	11	B	10	1	3	NA	NA	NA	NA	NA	NA	0.61	0.71	0.04	1.36	1.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	20/7/2019	Mid-Flood	Fine	Moderate	9:42	11	B	10	2	3	NA	NA	NA	NA	NA	NA	0.68	0.69	0.04	1.41	1.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR5	20/7/2019	Mid-Flood	Fine	Moderate	9:42	11	B	10	3	3	NA	NA	NA	NA	NA	NA	0.60	0.70	0.04	1.34	1.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR12	20/7/2019	Mid-Flood	Fine	Moderate	8:18	15	S	1	1	2	1.10	1.10	1.10	0.076	0.076	0.076	NA	NA	NA	NA	NA	NA	2000	2000	2000	NA	NA	NA	<1	<1	1		
SR12	20/7/2019	Mid-Flood	Fine	Moderate	8:18	15	S	1	2	3	1.10	1.10	1.10	0.076	0.076	0.076	NA	NA	NA	NA	NA	NA	2000	2000	2000	NA	NA	NA	<1	<1	1		
SR12	20/7/2019	Mid-Flood	Fine	Moderate	8:18	15	S	1	3	3	1.10	1.10	1.10	0.076	0.076	0.076	NA	NA	NA	NA	NA	NA	2000	2000	2000	NA	NA	NA	<1	<1	1		
SR12	20/7/2019	Mid-Flood	Fine	Moderate	8:18	15	M	7.5	1	3	1.20	1.15	1.15	0.084	0.077	0.080	NA	NA	NA	NA	NA	NA	2500	1600	2000	1978	NA	NA	NA	<1	<1	1	
SR12	20/7/2019	Mid-Flood	Fine	Moderate	8:18	15	M	7.5	2	3	1.20	1.15	1.15	0.084	0.077	0.080	NA	NA	NA	NA	NA	NA	2500	1600	2000	1978	NA	NA	NA	<1	<1	1	
SR12	20/7/2019	Mid-Flood	Fine	Moderate	8:18	15	M	7.5	3	3	1.20	1.15	1.15	0.084	0.077	0.080	NA	NA	NA	NA	NA	NA	2500	1600	2000	1978	NA	NA	NA	<1	<1	1	
SR12	20/7/2019	Mid-Flood	Fine	Moderate	8:18	15	B	14	1	3	1.20	1.20	1.20	0.084	0.084	0.084	NA	NA	NA	NA	NA	NA	2200	1700	1934	NA	NA	NA	<1	<1	1		
SR12	20/7/2019	Mid-Flood	Fine	Moderate	8:18	15	B	14	2	2	1.20	1.20	1.20	0.084	0.084	0.084	NA	NA	NA	NA	NA	NA	2200	1700	1934	NA	NA	NA	<1	<1	1		
SR12	20/7/2019	Mid-Flood	Fine	Moderate	8:18	15	B	14	3	3	1.20	1.20	1.20	0.084	0.084	0.084	NA	NA	NA	NA	NA	NA	2200	1700	1934	NA	NA	NA	<1	<1	1		
SR13	20/7/2019	Mid-Flood	Fine	Moderate	7:55	14	S	1	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	20/7/2019	Mid-Flood	Fine	Moderate	7:55	14	S	1	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	20/7/2019	Mid-Flood	Fine	Moderate	7:55	14	S	1	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	20/7/2019	Mid-Flood	Fine	Moderate	7:55	14	M	7	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	20/7/2019	Mid-Flood	Fine	Moderate	7:55	14	M	7	2	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	20/7/2019	Mid-Flood	Fine	Moderate	7:55	14	M	7	3	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	20/7/2019	Mid-Flood	Fine	Moderate	7:55	14	B	13	1	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	20/7/2019	Mid-Flood	Fine	Moderate	7:55	14	B	13	2	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SR13	20/7/2019	Mid-Flood	Fine	Moderate	7:55	14	B	13	3	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.



Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																																					
										pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Ammonia (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrite (mg/L-N)	TIN-Nitrate (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)														
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.												
SR4	20/7/2019	Mid-Ebb	Fine	Moderate	12:31	4	S	1	1	8.20	8.21	24.37	24.34	24.36	26.83	26.82	26.83	73.1	73.5	73.3	5.11	5.14	5.13	2.2	2.1	2.2	0.95	0.95	0.95	0.076	0.076	0.076	NA	NA	NA	NA	NA	NA	NA								
SR4	20/7/2019	Mid-Ebb	Fine	Moderate	12:31	4	S	1	3																																						
SR4	20/7/2019	Mid-Ebb	Fine	Moderate	12:31	4	S	1	3																																						
SR4	20/7/2019	Mid-Ebb	Fine	Moderate	12:31	4	M		1																																						
SR4	20/7/2019	Mid-Ebb	Fine	Moderate	12:31	4	M		3																																						
SR4	20/7/2019	Mid-Ebb	Fine	Moderate	12:31	4	B	3	1	8.21	8.21	24.50	24.51	24.51	26.60	26.59	26.60	69.9	70.2	70.1	4.89	4.91	4.90	2.7	2.9	2.8	0.97	0.97	0.97	0.078	0.078	0.078	NA	NA	NA	NA	NA	NA	NA	NA	NA						
SR4	20/7/2019	Mid-Ebb	Fine	Moderate	12:31	4	B	3	3																																						
SR5	20/7/2019	Mid-Ebb	Fine	Moderate	11:12	11	S	1	1	8.18	8.19	24.21	24.18	24.20	26.46	26.45	26.46	87.0	86.8	86.9	6.11	6.09	6.10	1.7	1.5	1.6	NA	NA	NA	NA	NA	NA	NA	0.75	0.71	0.03	1.49										
SR5	20/7/2019	Mid-Ebb	Fine	Moderate	11:12	11	S	1	2	8.19																																					
SR5	20/7/2019	Mid-Ebb	Fine	Moderate	11:12	11	S	1	3																																						
SR5	20/7/2019	Mid-Ebb	Fine	Moderate	11:12	11	M	5.5	1	8.20	8.21	24.39	24.40	24.40	26.30	26.31	26.31	82.8	83.0	82.9	5.82	5.84	5.83	2.8	2.6	2.7	NA	NA	NA	NA	NA	NA	NA	0.77	0.70	0.03	1.50										
SR5	20/7/2019	Mid-Ebb	Fine	Moderate	11:12	11	M	5.5	2	8.21																																					
SR5	20/7/2019	Mid-Ebb	Fine	Moderate	11:12	11	M	5.5	3																																						
SR5	20/7/2019	Mid-Ebb	Fine	Moderate	11:12	11	B	10	1	8.21	8.21	24.73	24.70	24.72	26.10	26.09	26.10	78.4	78.1	78.3	5.51	5.49	5.50	3.3	3.5	3.4	NA	NA	NA	NA	NA	NA	NA	0.77	0.72	0.04	1.53										
SR5	20/7/2019	Mid-Ebb	Fine	Moderate	11:12	11	B	10	2	8.21																																					
SR5	20/7/2019	Mid-Ebb	Fine	Moderate	11:12	11	B	10	3																																						
SR12	20/7/2019	Mid-Ebb	Fine	Moderate	12:52	15	S	1	1	8.16	8.17	26.03	26.06	26.05	26.00	26.01	26.01	81.8	82.0	81.9	5.68	5.70	5.69	1.4	1.2	1.3	1.21	1.21	1.21	0.084	0.084	0.084	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR12	20/7/2019	Mid-Ebb	Fine	Moderate	12:52	15	S	1	2	8.17																																					
SR12	20/7/2019	Mid-Ebb	Fine	Moderate	12:52	15	S	1	3																																						
SR12	20/7/2019	Mid-Ebb	Fine	Moderate	12:52	15	M	7.5	1	8.20	8.20	26.39	26.42	26.41	25.73	25.72	25.73	75.3	75.1	75.2	5.23	5.22	5.23	2.2	2.0	2.1	1.22	1.22	1.22	0.088	0.088	0.088	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR12	20/7/2019	Mid-Ebb	Fine	Moderate	12:52	15	M	7.5	3																																						
SR12	20/7/2019	Mid-Ebb	Fine	Moderate	12:52	15	B	14	1	8.22	8.22	26.86	26.83	26.85	25.54	25.53	25.54	70.4	70.7	70.6	4.89	4.91	4.90	3.1	3.3	3.2	1.21	1.21	1.21	0.090	0.090	0.090	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR12	20/7/2019	Mid-Ebb	Fine	Moderate	12:52	15	B	14	3																																						
SR13	20/7/2019	Mid-Ebb	Fine	Moderate	13:18	14	S	1	1	8.12	8.13	27.46	27.43	27.45	25.62	25.61	25.62	86.6	86.8	86.7	6.02	6.05	6.04	1.1	0.9	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SR13	20/7/2019	Mid-Ebb	Fine	Moderate	13:18	14	S	1	2	8.13																																					
SR13	20/7/2019	Mid-Ebb	Fine	Moderate	13:18	14	S	1	3																																						
SR13	20/7/2019	Mid-Ebb	Fine	Moderate	13:18	14	M	7	1	8.13	8.14	27.82	27.80	27.81	25.46	25.47	25.47	84.2	83.8	84.0	5.86	5.83	5.85	1.8	2.0	1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	20/7/2019	Mid-Ebb	Fine	Moderate	13:18	14	M	7	3																																						
SR13	20/7/2019	Mid-Ebb	Fine	Moderate	13:18	14	B	13	1	8.15	8.15	28.16	28.14	28.15	25.32	25.32	25.32	79.0	79.3	79.2	5.50	5.52	5.51	2.7	2.8	2.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SR13	20/7/2019	Mid-Ebb	Fine	Moderate	13:18	14	B	13	2	8.14																																					
SR13	20/7/2019	Mid-Ebb	Fine	Moderate	13:18	14	B	13	3																																						

Note: 1. Depth Ave.: (Except E.coli) "Depth-averaged" is calculated by taking the arithmetic means for the reading of the surface, middle and bottom depths  
 2. ND: Not Detected  
 3. Depth Averaged of E.coli is calculated by taking geometric mean of the readings of the surface, middle and bottom, all ND sample results (<1) for E.coli is regarded as 1 in calculating the geometric mean.

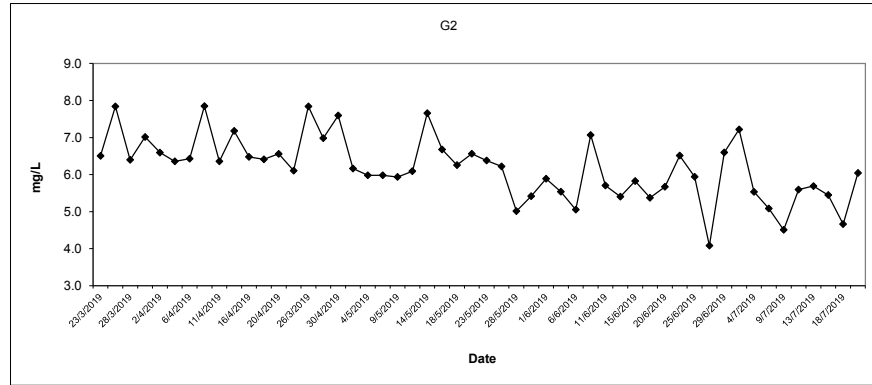
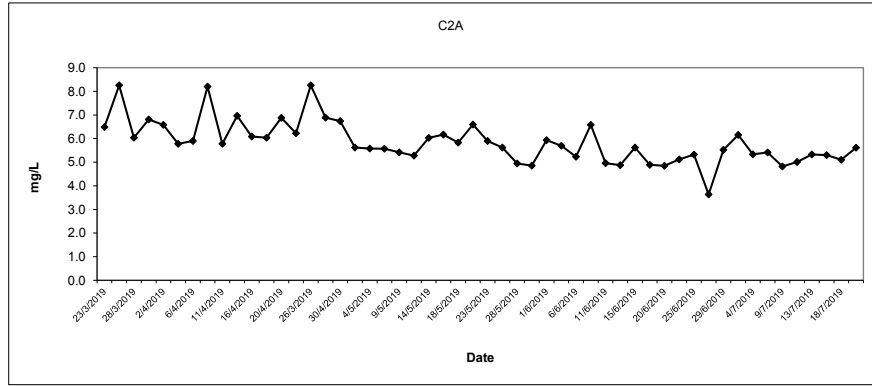
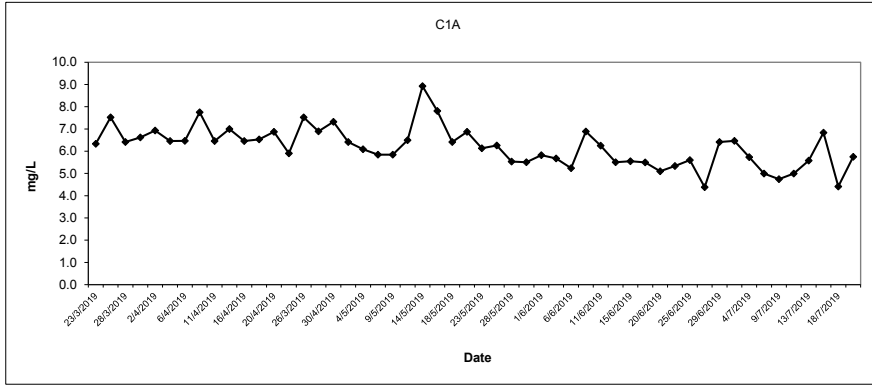
Impact Monitoring Data

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Laboratory Analysis																							
										Total Suspended Solids (mg/L)			Ammonia Nitrogen (mg/L-N)			UIA (mg/L-N)			TIN-Ammonia (mg/L-N)	TIN-Nitrate (mg/L-N)	TIN-Nitrite (mg/L-N)	Total Inorganic Nitrogen (mg/L-N)			E.coli (cfu/100mL)			Synthetic Detergent (mg/L)			BOD <sub>5</sub> (mg/L)		
										Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Value	Value	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
C1A	20/7/2019	Mid-Ebb	Fine	Moderate	10:50	28	S	1	1	2	0.68			0.043			0.68	0.67	0.04	1.39				560			NA			1			
C1A	20/7/2019	Mid-Ebb	Fine	Moderate	10:50	28	S	1	2	3	0.67	0.68		0.042	0.043		0.67	0.67	0.04	1.38				600	580		NA	NA		1	1		
C1A	20/7/2019	Mid-Ebb	Fine	Moderate	10:50	28	S	1	3							0.65	0.68	0.04	1.37							NA	NA						
C1A	20/7/2019	Mid-Ebb	Fine	Moderate	10:50	28	M	14	1	3	0.70			0.044			0.70	0.68	0.04	1.42				560			NA			1			
C1A	20/7/2019	Mid-Ebb	Fine	Moderate	10:50	28	M	14	2	3	0.61	0.66	0.66	0.039	0.042		0.61	0.66	0.04	1.31				530	545	616	NA	NA	NA	<1	1	1	
C1A	20/7/2019	Mid-Ebb	Fine	Moderate	10:50	28	M	14	3							0.72	0.68	0.04	1.44							NA							
C1A	20/7/2019	Mid-Ebb	Fine	Moderate	10:50	28	B	27	1	3	0.67			0.043			0.67	0.67	0.04	1.38				1100			NA			2			
C1A	20/7/2019	Mid-Ebb	Fine	Moderate	10:50	28	B	27	2	3	0.63	0.65		0.040	0.042		0.63	0.67	0.04	1.34				500	742		NA	NA		2	2		
C1A	20/7/2019	Mid-Ebb	Fine	Moderate	10:50	28	B	27	3							0.64	0.66	0.04	1.34							NA							
C2A	20/7/2019	Mid-Ebb	Fine	Moderate	13:39	13	S	1	1	4	1.50			0.090	0.084		1.50	0.26	0.02	1.78				3800			NA			1			
C2A	20/7/2019	Mid-Ebb	Fine	Moderate	13:39	13	S	1	2	4	1.30	1.40		0.078			1.30	0.25	0.02	1.57				3900	3850		NA	NA		1	1		
C2A	20/7/2019	Mid-Ebb	Fine	Moderate	13:39	13	S	1	3							1.20	0.26	0.02	1.48							NA							
C2A	20/7/2019	Mid-Ebb	Fine	Moderate	13:39	13	M	6.5	1	4	1.30			0.079			1.30	0.26	0.02	1.58				3400			NA			1			
C2A	20/7/2019	Mid-Ebb	Fine	Moderate	13:39	13	M	6.5	2	4	1.30	1.30	1.32	0.079	0.079	0.081	1.30	0.26	0.02	1.58				4100	3734	3787	NA	NA	NA	1	1	1	
C2A	20/7/2019	Mid-Ebb	Fine	Moderate	13:39	13	M	6.5	3							1.30	0.26	0.02	1.58							NA							
C2A	20/7/2019	Mid-Ebb	Fine	Moderate	13:39	13	B	12	1	3	1.20			0.078			1.20	0.26	0.02	1.48				4200			NA			1			
C2A	20/7/2019	Mid-Ebb	Fine	Moderate	13:39	13	B	12	2	4	1.30	1.25		0.084	0.081		1.30	0.27	0.02	1.59				3400	3779		NA	NA		1	1		
C2A	20/7/2019	Mid-Ebb	Fine	Moderate	13:39	13	B	12	3							1.30	0.26	0.02	1.58							NA							
G2	20/7/2019	Mid-Ebb	Fine	Moderate	11:57	12	S	1	1	3	NA			NA	NA		0.97	2.50	0.04	3.51				NA			NA			NA			
G2	20/7/2019	Mid-Ebb	Fine	Moderate	11:57	12	S	1	2	3	NA	NA		NA	NA		0.84	2.50	0.04	3.38				NA	NA		NA	NA		NA	NA		
G2	20/7/2019	Mid-Ebb	Fine	Moderate	11:57	12	S	1	3							0.88	2.50	0.03	3.41							NA							
G2	20/7/2019	Mid-Ebb	Fine	Moderate	11:57	12	M	6	1	3	NA			NA	NA		0.84	2.50	0.04	3.38				NA			NA	NA		NA	NA		
G2	20/7/2019	Mid-Ebb	Fine	Moderate	11:57	12	M	6	2	3	NA	NA	NA	NA	NA		0.80	2.50	0.03	3.33				NA	NA		NA	NA		NA	NA		
G2	20/7/2019	Mid-Ebb	Fine	Moderate	11:57	12	M	6	3							0.81	2.50	0.04	3.35							NA							
G2	20/7/2019	Mid-Ebb	Fine	Moderate	11:57	12	B	11	1	3	NA			NA	NA		0.85	2.50	0.04	3.39				NA			NA	NA		NA	NA		
G2	20/7/2019	Mid-Ebb	Fine	Moderate	11:57	12	B	11	2	2	NA	NA		NA	NA		0.83	2.50	0.04	3.37				NA	NA		NA	NA		NA	NA		
G2	20/7/2019	Mid-Ebb	Fine	Moderate	11:57	12	B	11	3							0.79	2.60	0.03	3.42							NA							
SR2	20/7/2019	Mid-Ebb	Fine	Moderate	11:34	9	S	1	1	3	0.87			0.069	0.069		NA	NA	NA	NA				NA			NA			NA	NA		
SR2	20/7/2019	Mid-Ebb	Fine	Moderate	11:34	9	S	1	2	2	0.87	0.87		0.069			NA	NA	NA	NA				NA	NA		NA	NA		NA	NA		
SR2	20/7/2019	Mid-Ebb	Fine	Moderate	11:34	9	S	1	3							NA	NA	NA	NA							NA							
SR2	20/7/2019	Mid-Ebb	Fine	Moderate	11:34	9	M	4.5	1	3	0.88			0.071			NA	NA	NA	NA				NA			NA			NA	NA		
SR2	20/7/2019	Mid-Ebb	Fine	Moderate	11:34	9	M	4.5	2	2	0.91	0.90	0.89	0.073	0.072	0.071	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA		
SR2	20/7/2019	Mid-Ebb	Fine	Moderate	11:34	9	M	4.5	3							NA	NA	NA	NA							NA							
SR2	20/7/2019	Mid-Ebb	Fine	Moderate	11:34	9	B	8	1	3	0.91			0.074			NA	NA	NA	NA				NA			NA			NA	NA		
SR2	20/7/2019	Mid-Ebb	Fine	Moderate	11:34	9	B	8	2	3	0.91	0.91		0.074	0.074		NA	NA	NA	NA				NA	NA		NA	NA		NA	NA		
SR2	20/7/2019	Mid-Ebb	Fine	Moderate	11:34	9	B	8	3							NA	NA	NA	NA							NA							
SR3	20/7/2019	Mid-Ebb	Fine	Moderate	12:18	8	S	1	1	2	0.94			0.078			NA	NA	NA	NA				NA			NA			NA	NA		
SR3	20/7/2019	Mid-Ebb	Fine	Moderate	12:18	8	S	1	2	2	0.93	0.94		0.077	0.077		NA	NA	NA	NA				NA	NA		NA	NA		NA	NA		
SR3	20/7/2019	Mid-Ebb	Fine	Moderate	12:18	8	S	1	3							NA	NA	NA	NA							NA							
SR3	20/7/2019	Mid-Ebb	Fine	Moderate	12:18	8	M	4	1	3	0.86			0.070			NA	NA	NA	NA				NA			NA			NA	NA		
SR3	20/7/2019	Mid-Ebb	Fine	Moderate	12:18	8	M	4	2	3	0.89	0.88	0.89	0.072	0.071	0.073	NA	NA	NA	NA				NA	NA		NA	NA		NA	NA		
SR3	20/7/2019	Mid-Ebb	Fine	Moderate	12:18	8	M	4	3							NA	NA	NA	NA							NA							
SR3	20/7/2019	Mid-Ebb	Fine	Moderate	12:18	8	B	7	1	3	0.88			0.073			NA	NA	NA	NA				NA			NA			NA	NA		
SR3	20/7/2019	Mid-Ebb	Fine	Moderate	12:18	8	B	7	2	3	0.85	0.87		0.071	0.072		NA	NA	NA	NA				NA	NA		NA	NA		NA	NA		
SR3	20/7/2019	Mid-Ebb	Fine	Moderate	12:18	8	B	7	3							NA	NA	NA	NA							NA							

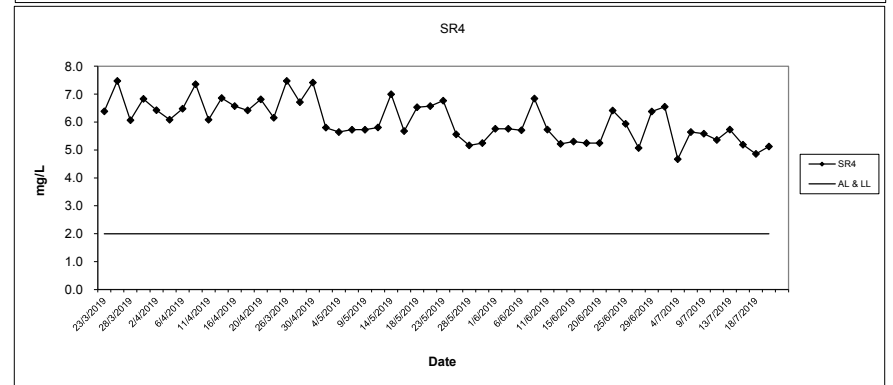
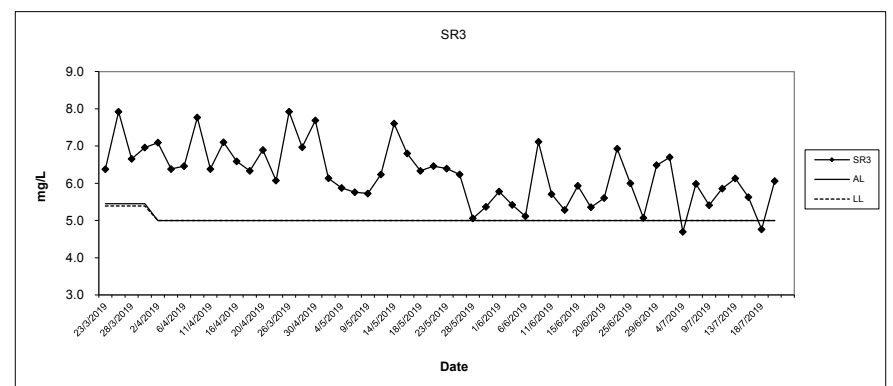
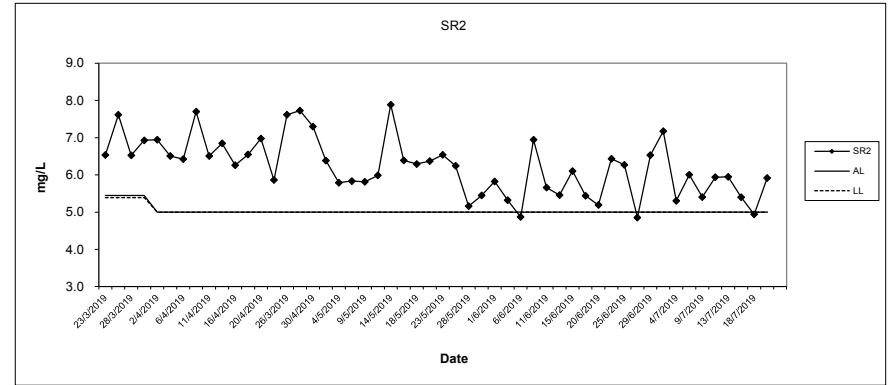




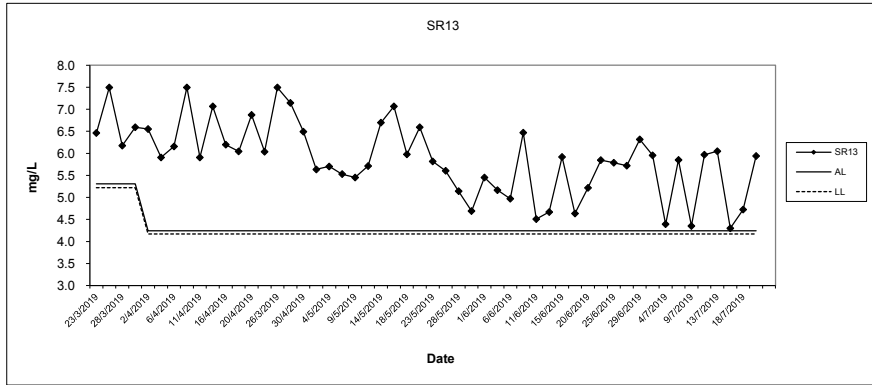
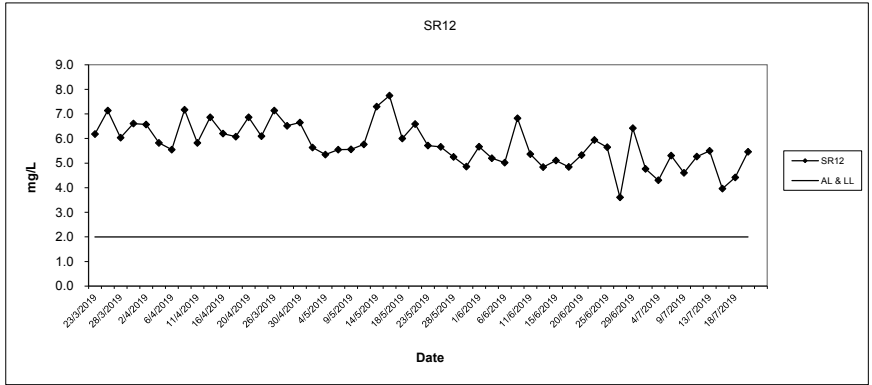
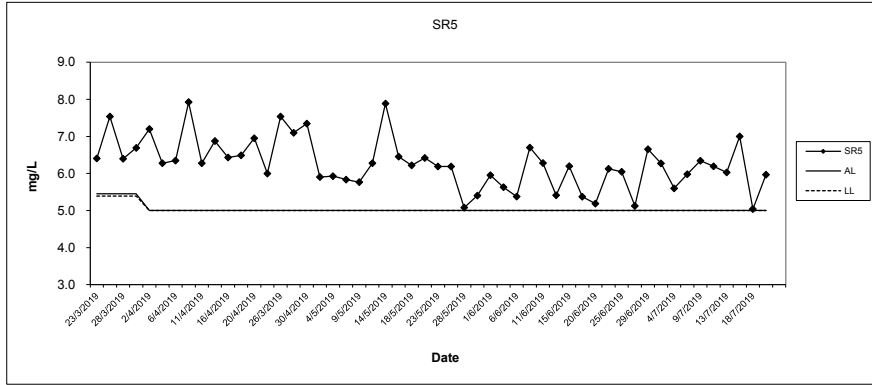
Dissolved Oxygen (Surface and Middle) at Mid-Ebb Tide



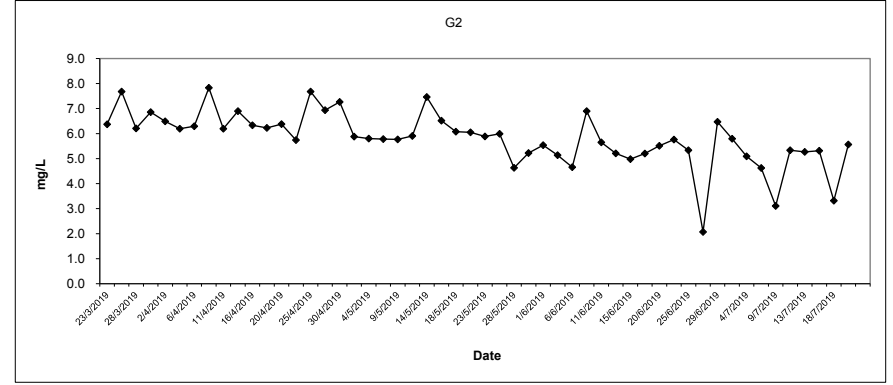
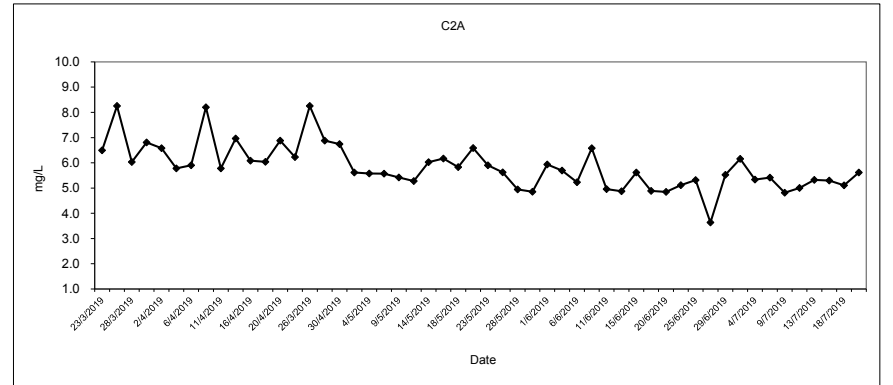
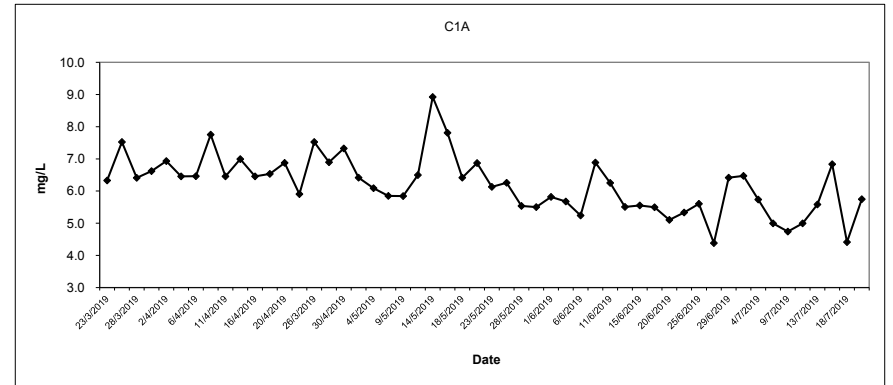
Dissolved Oxygen (Surface and Middle) at Mid-Ebb Tide



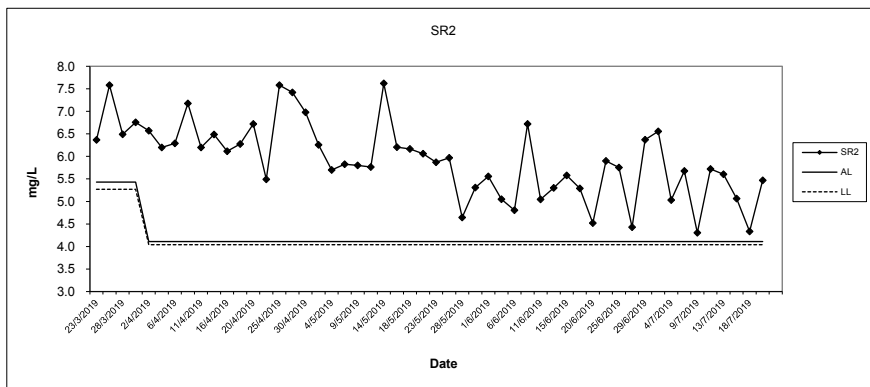
Dissolved Oxygen (Surface and Middle) at Mid-Ebb Tide



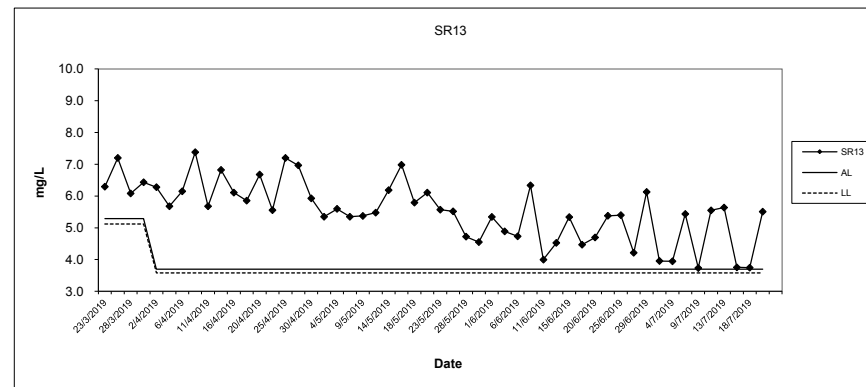
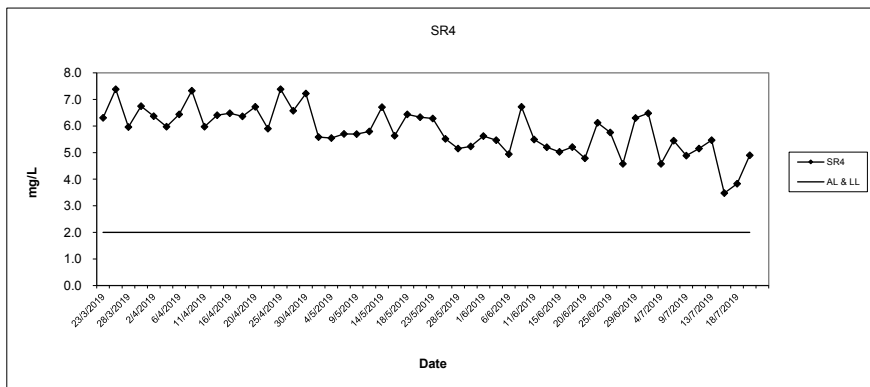
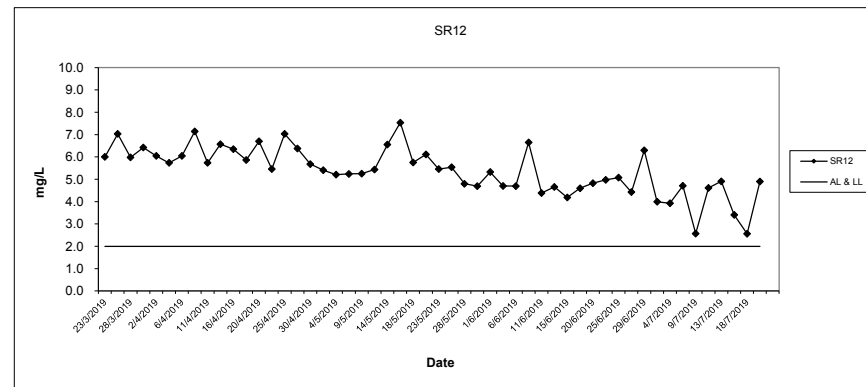
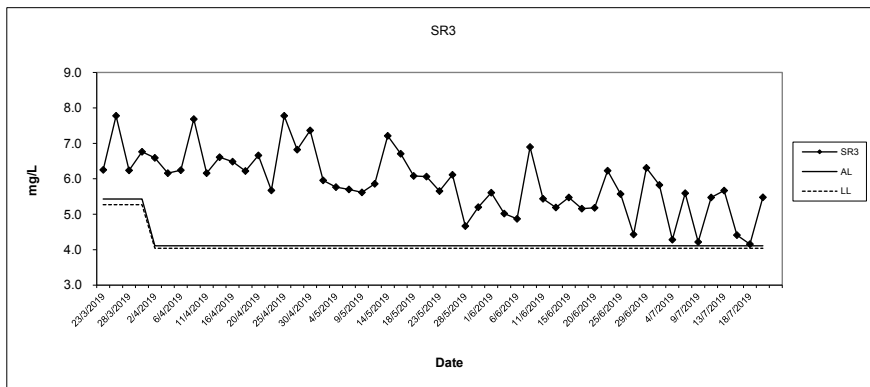
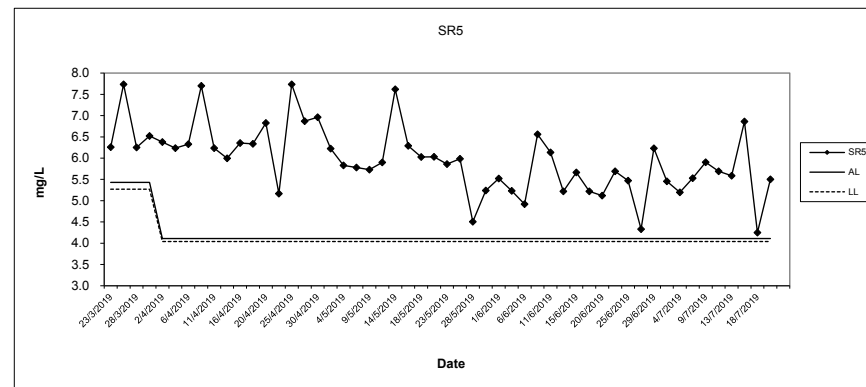
Dissolved Oxygen (Bottom) at Mid-Ebb Tide



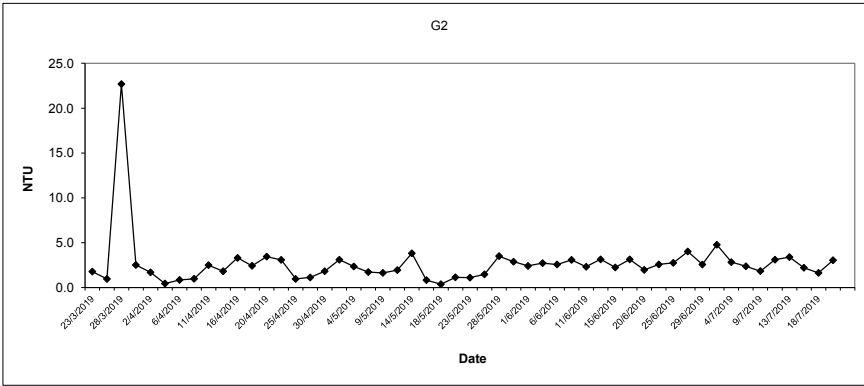
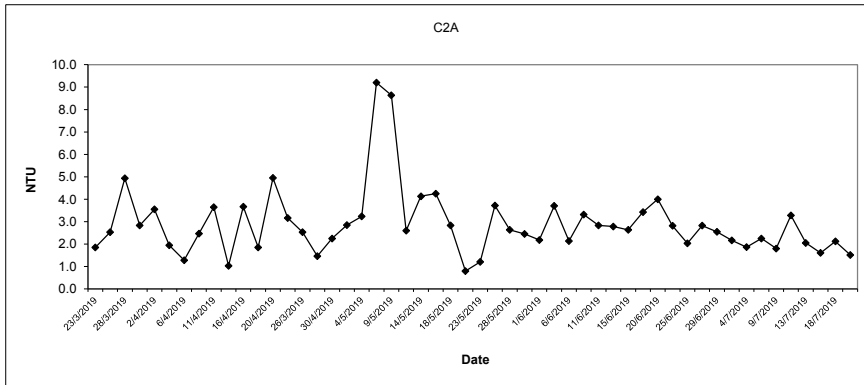
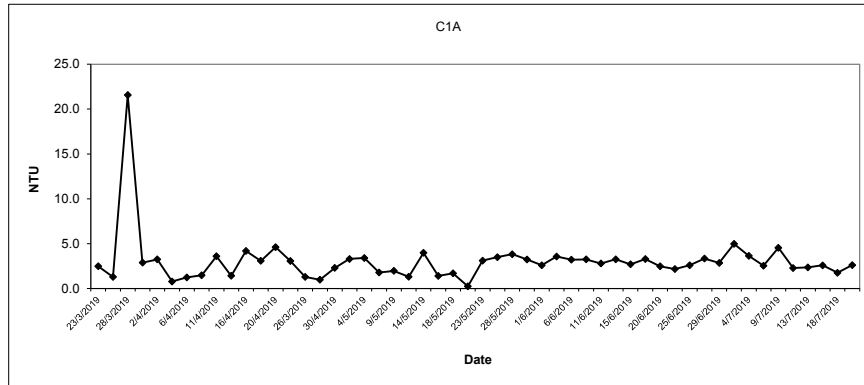
Dissolved Oxygen (Bottom) at Mid-Ebb Tide



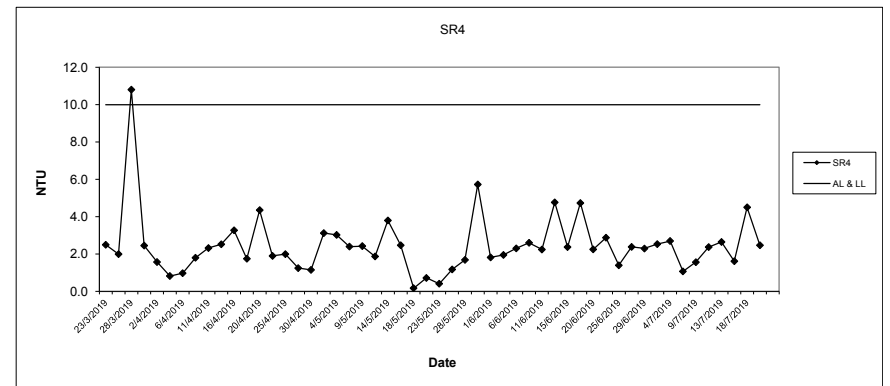
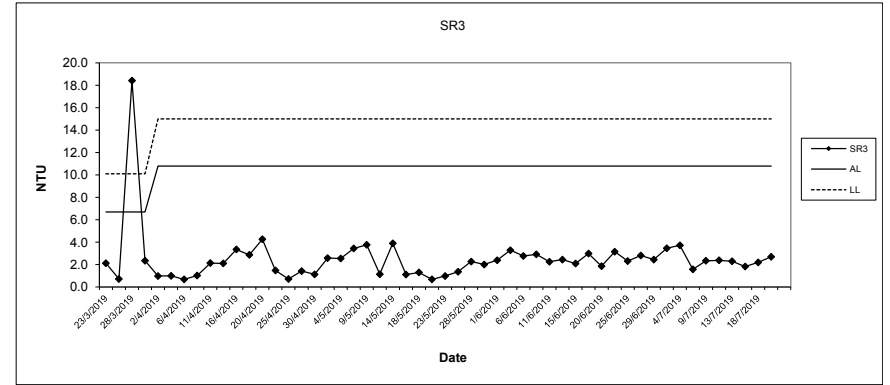
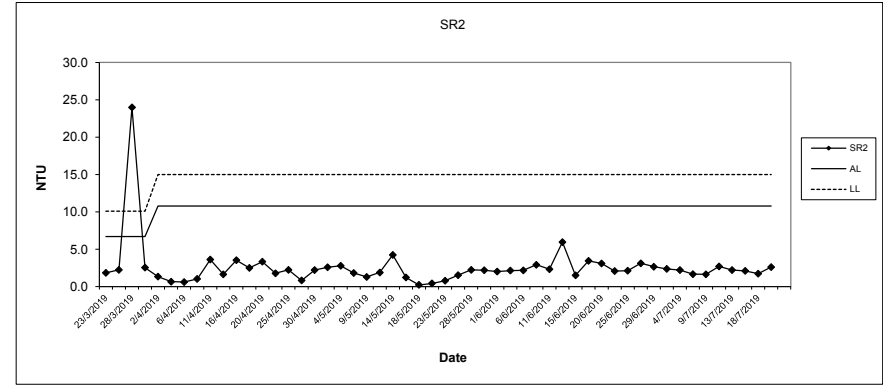
Dissolved Oxygen (Bottom) at Mid-Ebb Tide



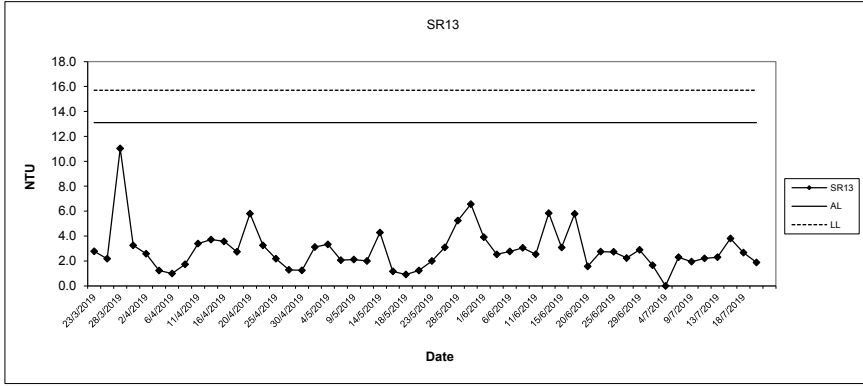
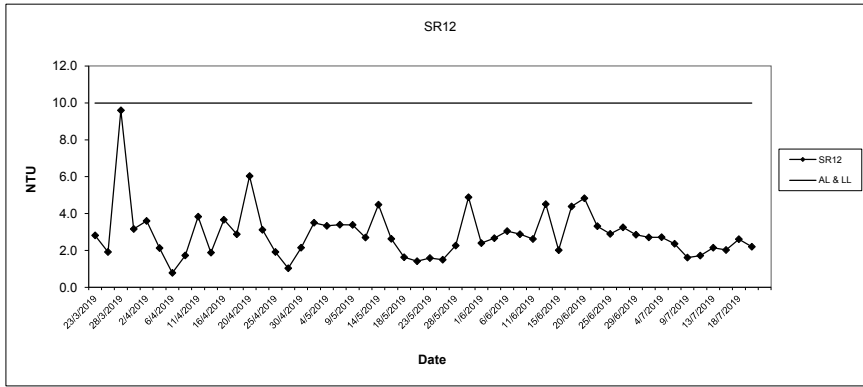
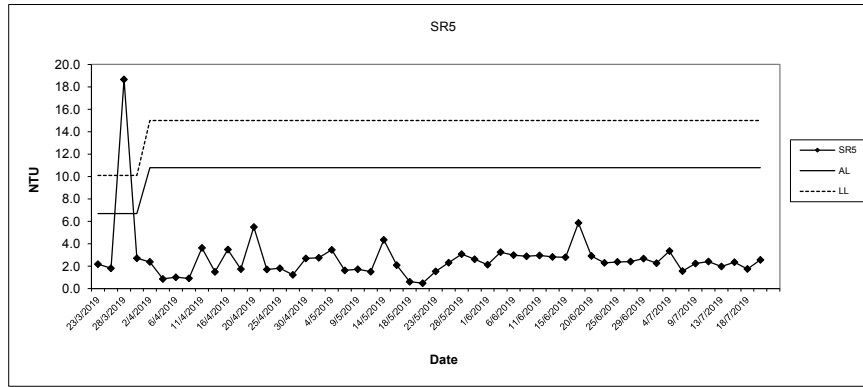
Turbidity (Depth average) at Mid-Ebb Tide



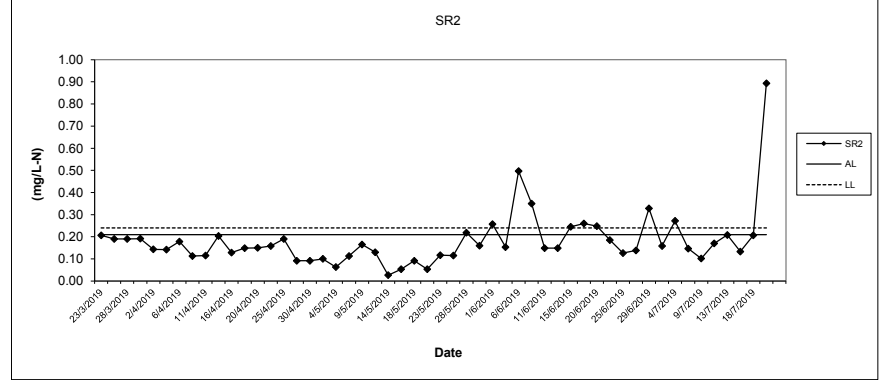
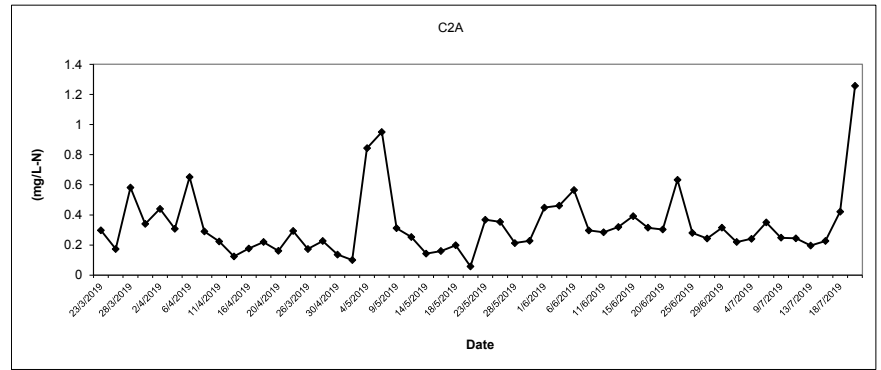
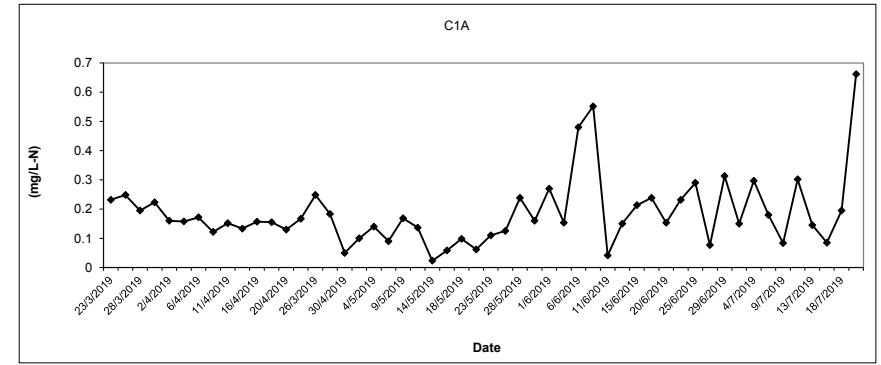
Turbidity (Depth average) at Mid-Ebb Tide



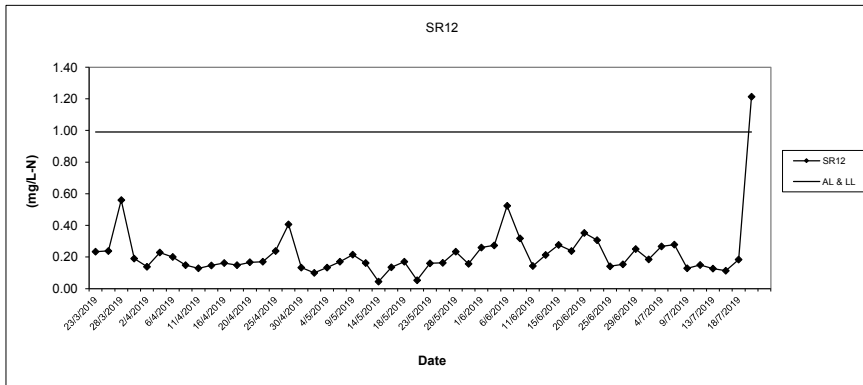
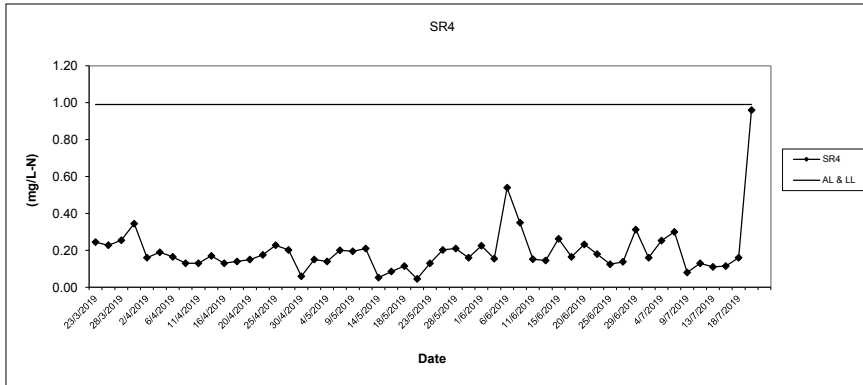
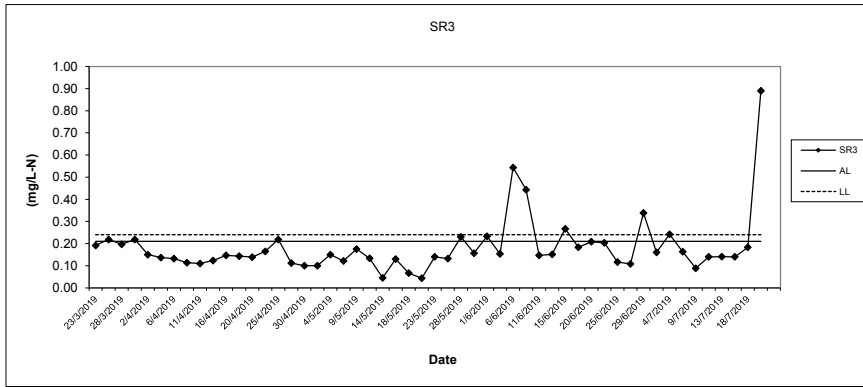
Turbidity (Depth average) at Mid-Ebb Tide



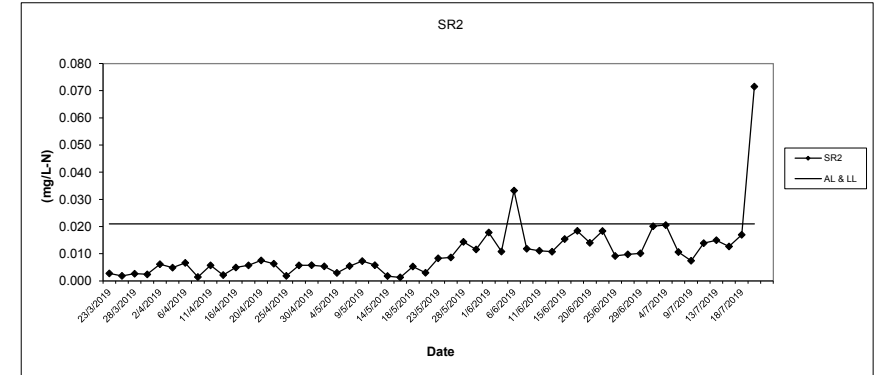
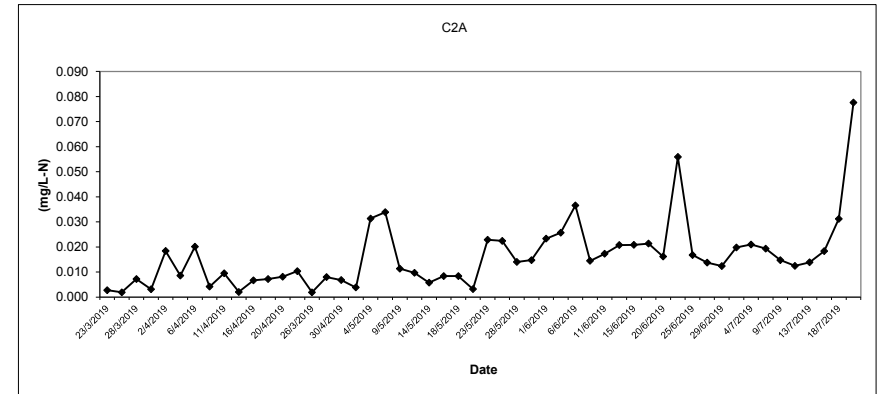
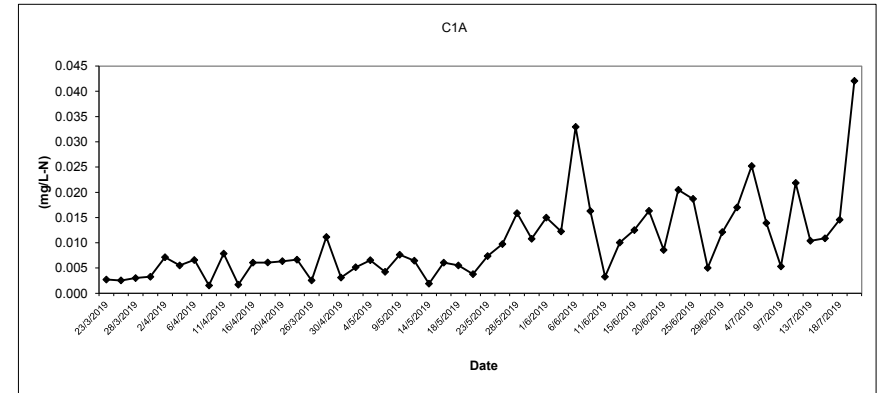
In-situ Ammonia (Depth average) at Mid-Ebb Tide



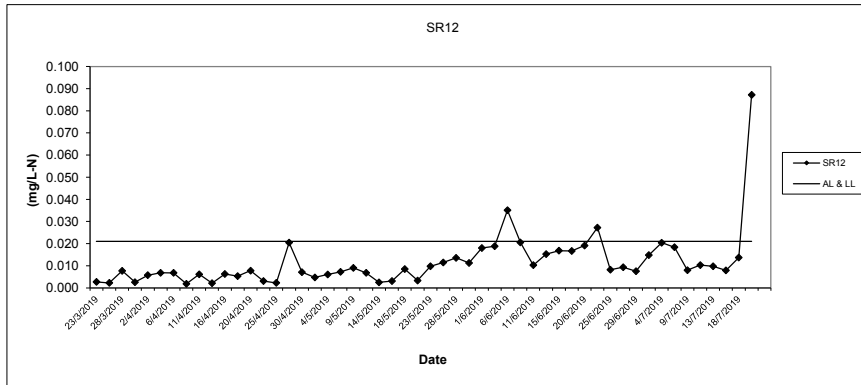
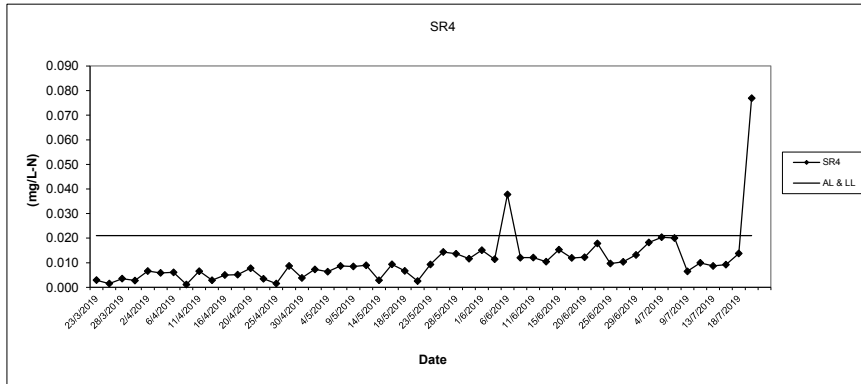
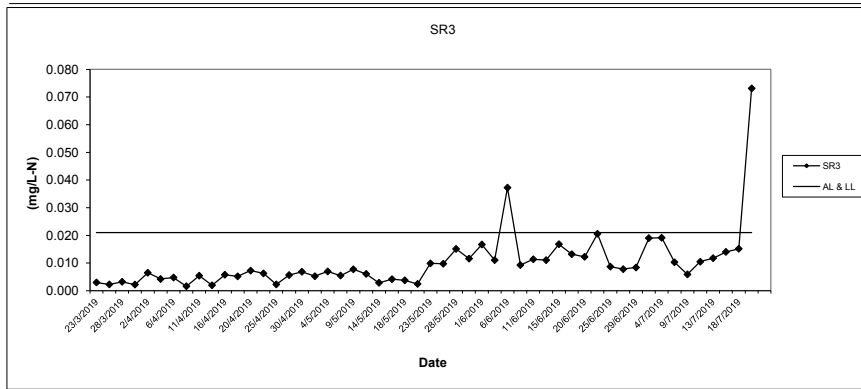
In-situ Ammonia (Depth average) at Mid-Ebb Tide



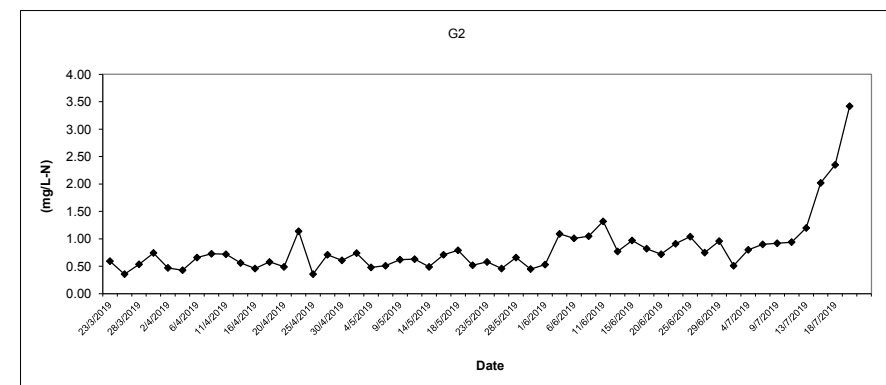
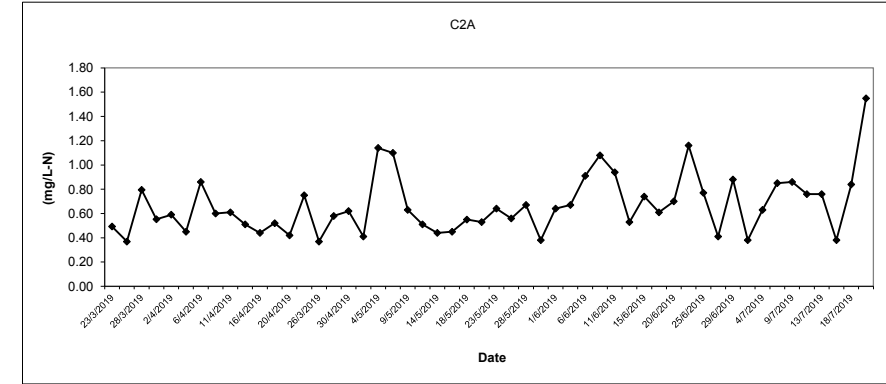
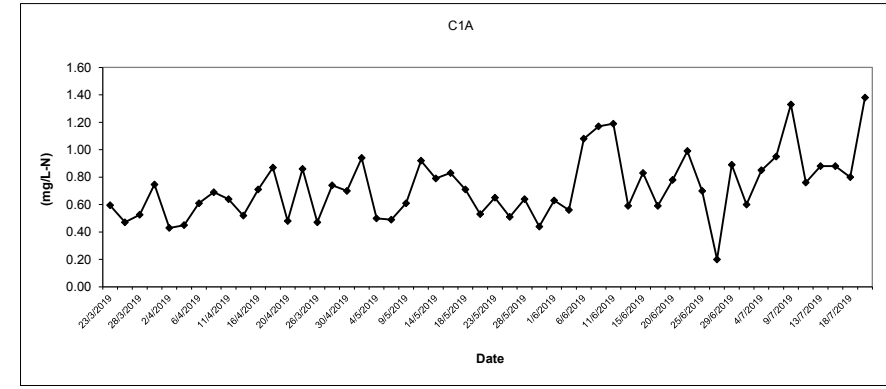
In-situ UIA (Depth average) at Mid-Ebb Tide



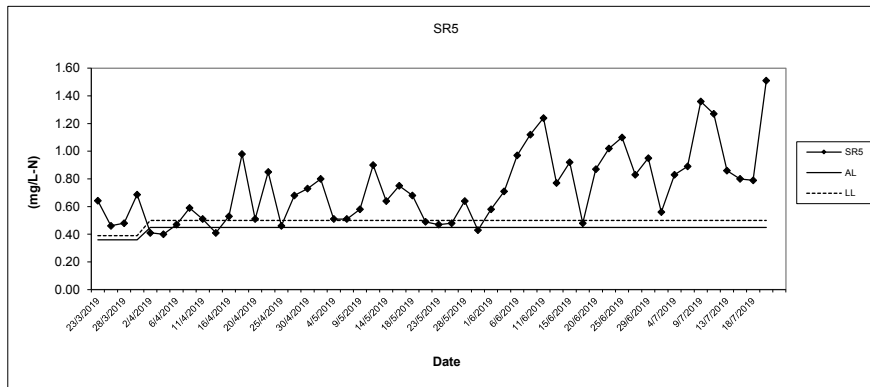
In-situ UIA (Depth average) at Mid-Ebb Tide



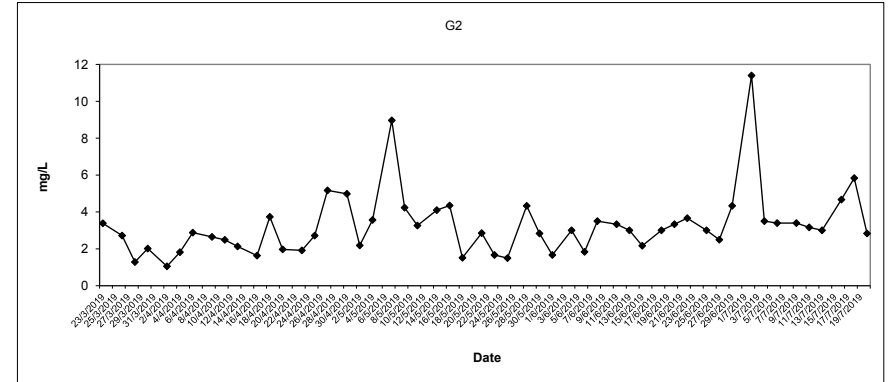
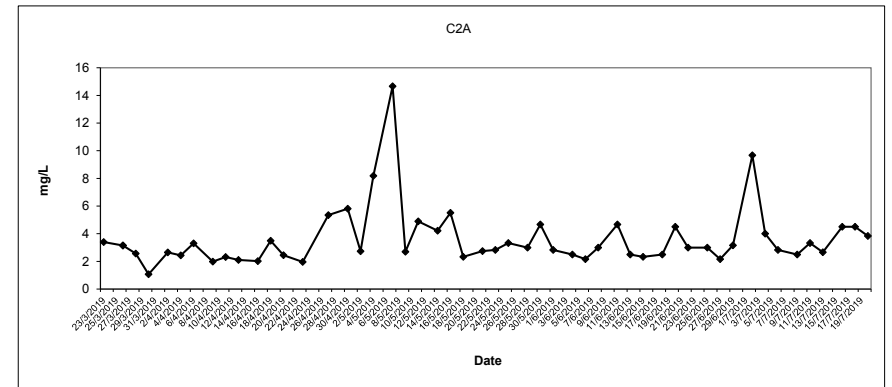
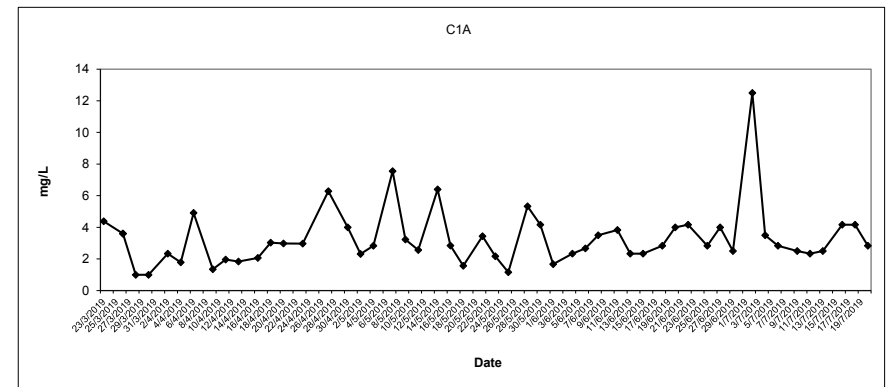
In-situ TIN (Depth average) at Mid-Ebb Tide



In-situ TIN (Depth average) at Mid-Ebb Tide

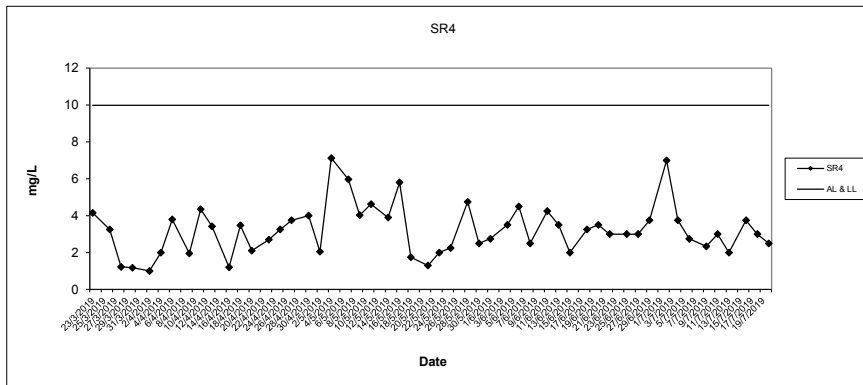
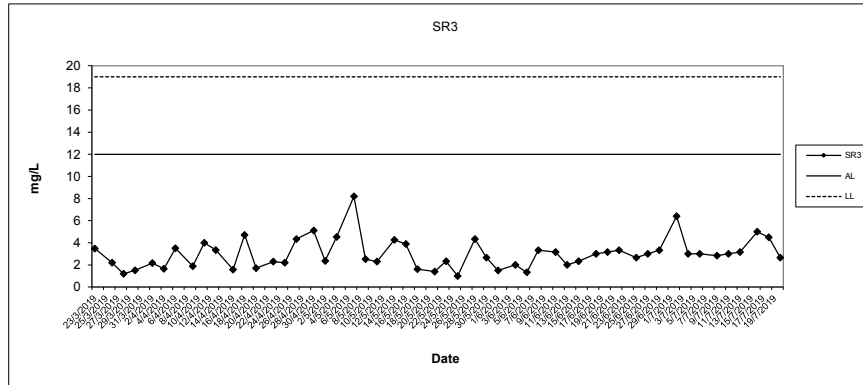
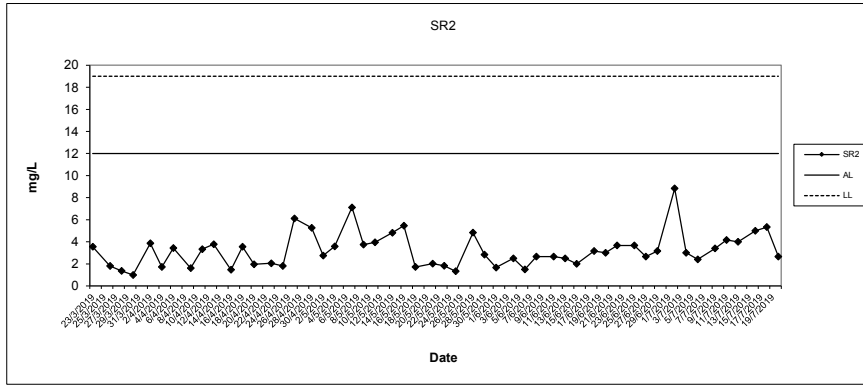


Total Suspended Solids (Depth average) at Mid-Ebb Tide

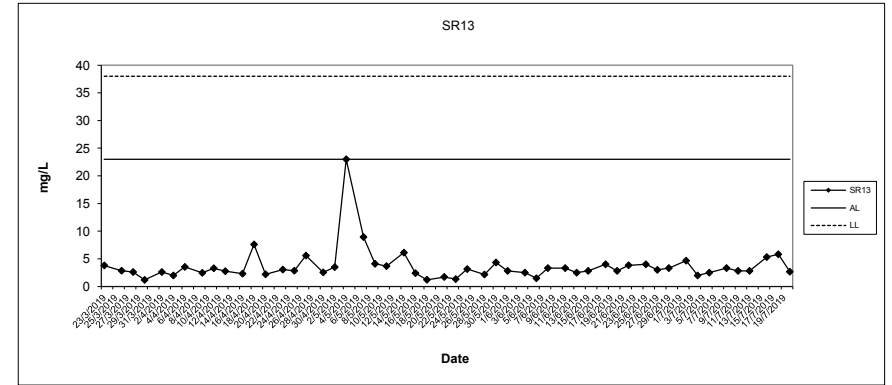
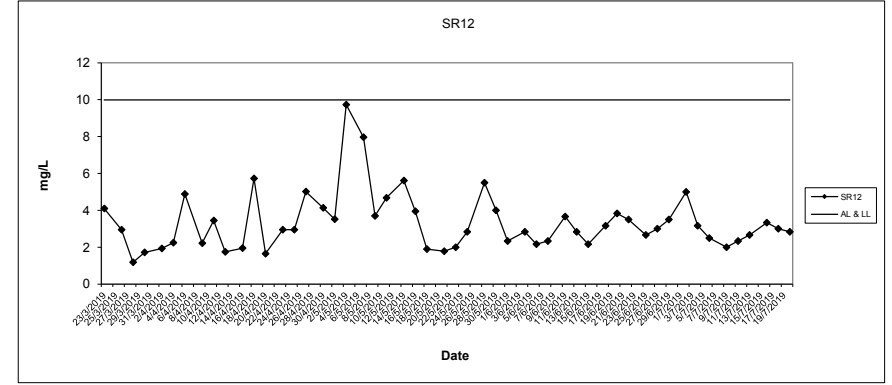
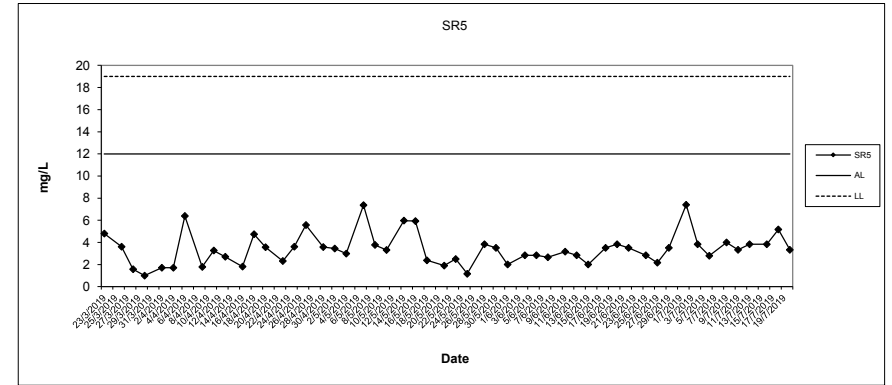




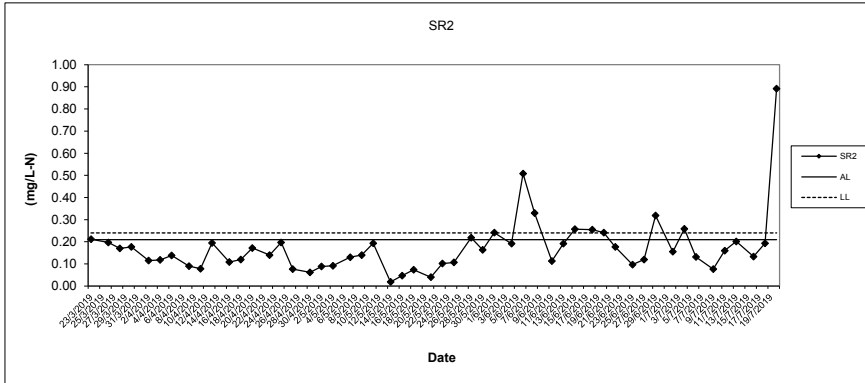
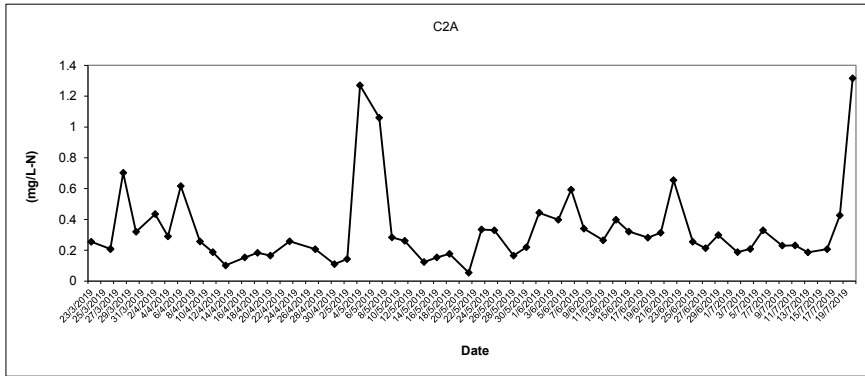
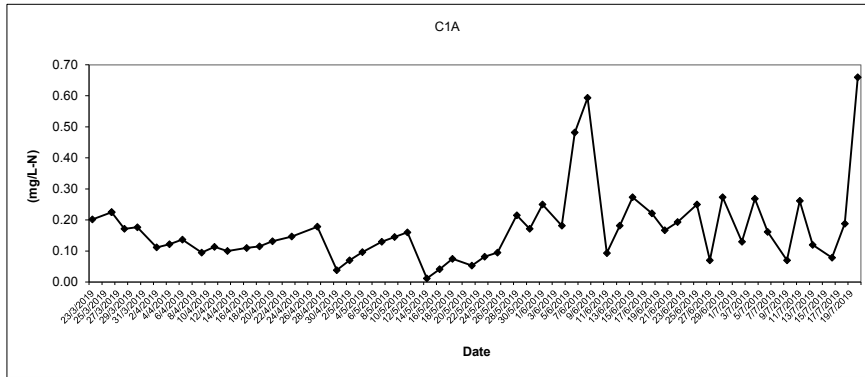
Total Suspended Solids (Depth average) at Mid-Ebb Tide



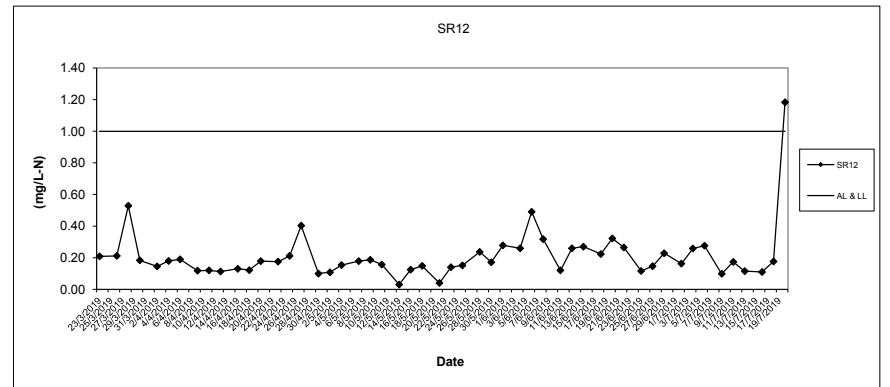
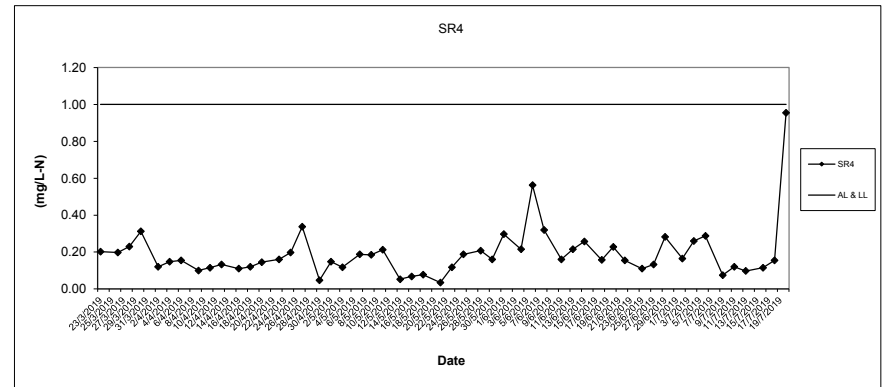
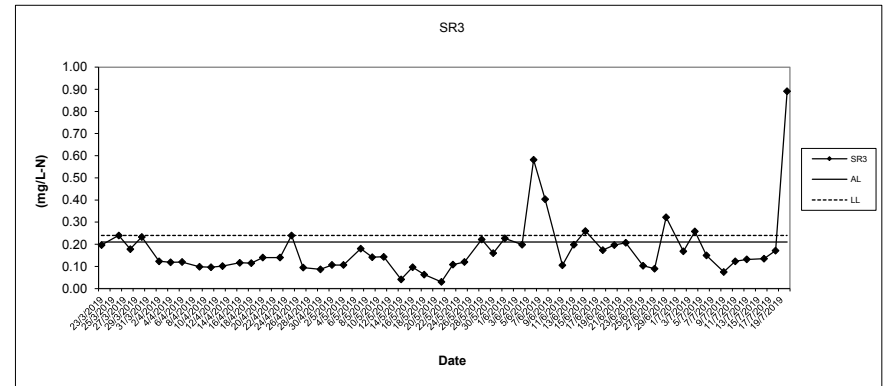
Total Suspended Solids (Depth average) at Mid-Ebb Tide



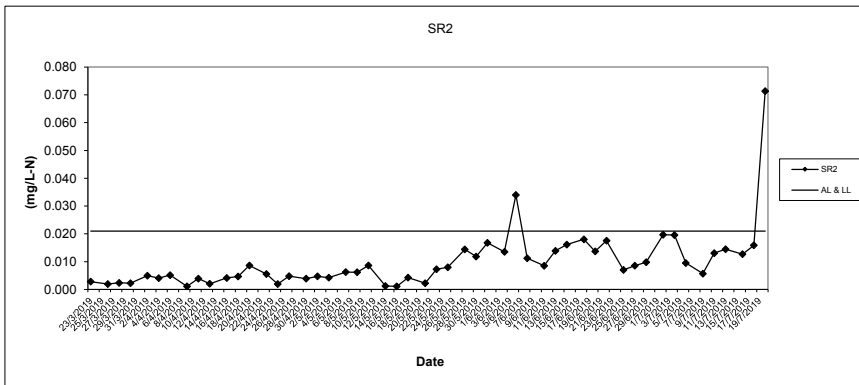
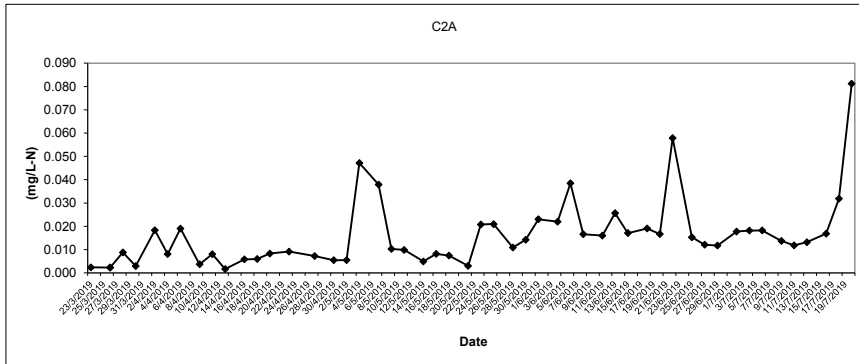
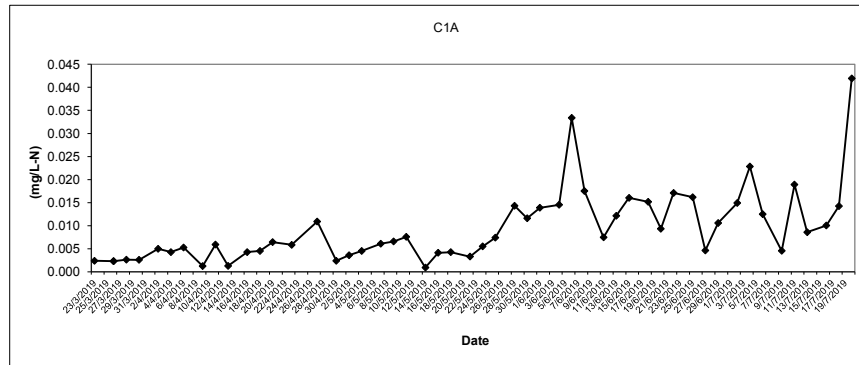
Ammonia Nitrogen (Depth average) at Mid-Ebb Tide



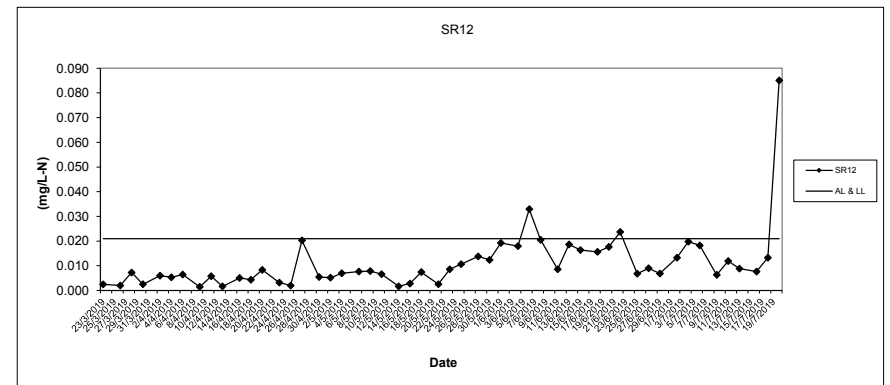
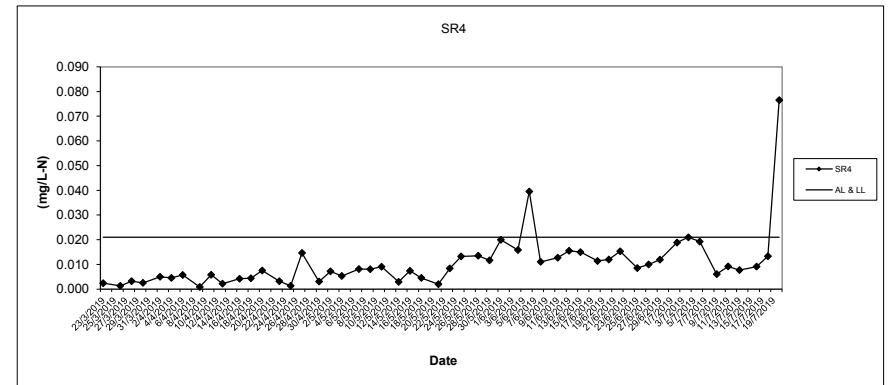
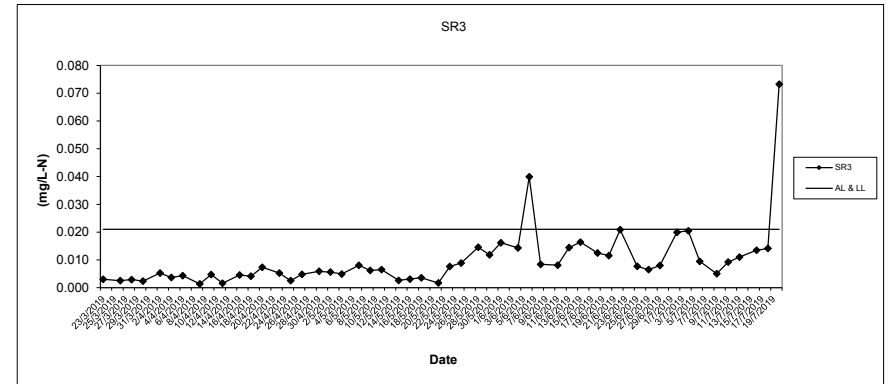
Ammonia Nitrogen (Depth average) at Mid-Ebb Tide



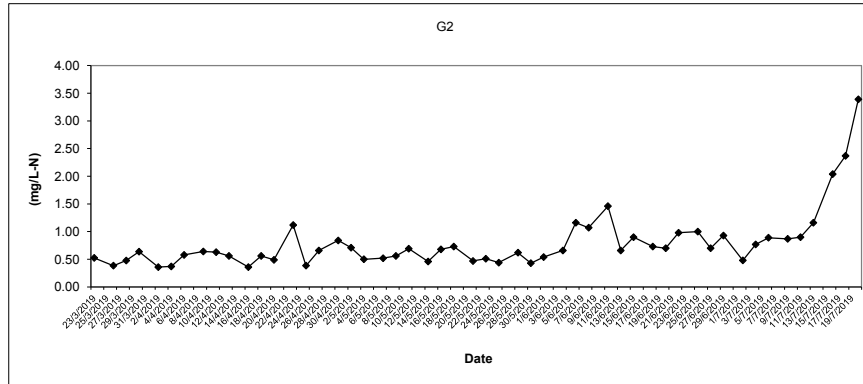
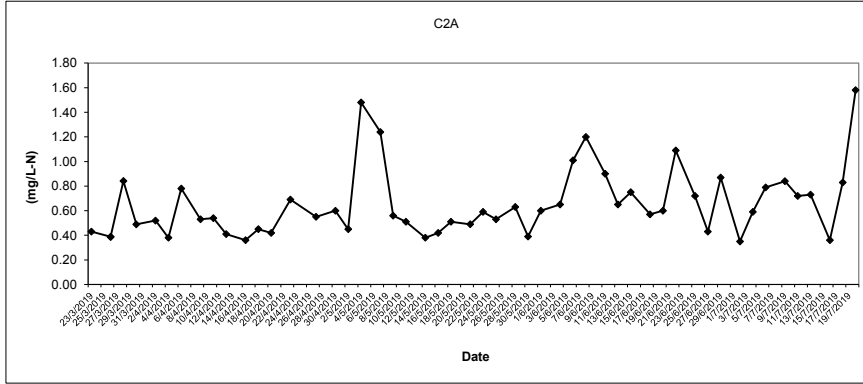
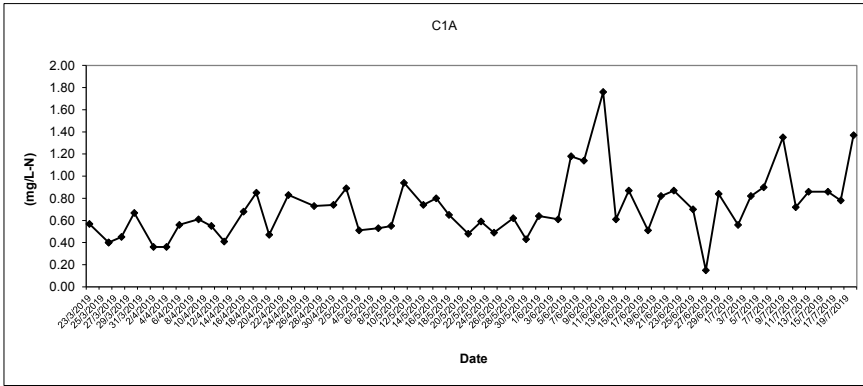
Laboratory Analysis UIA (Depth average) at Mid-Ebb Tide



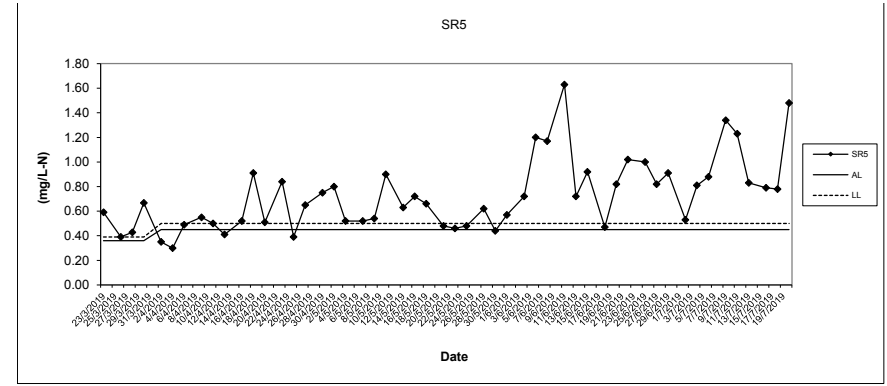
Laboratory Analysis UIA (Depth average) at Mid-Ebb Tide



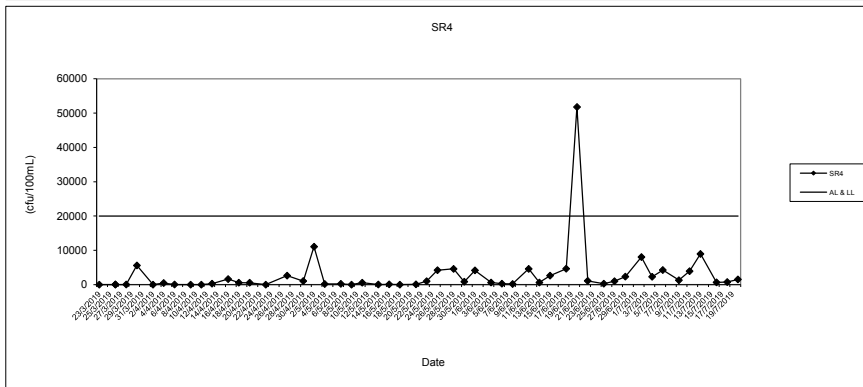
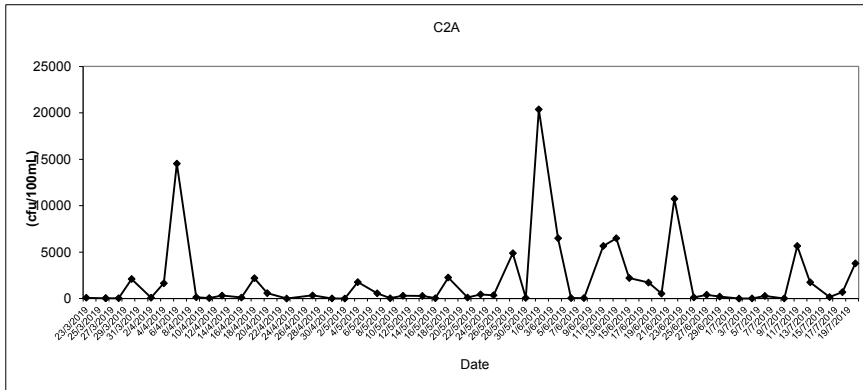
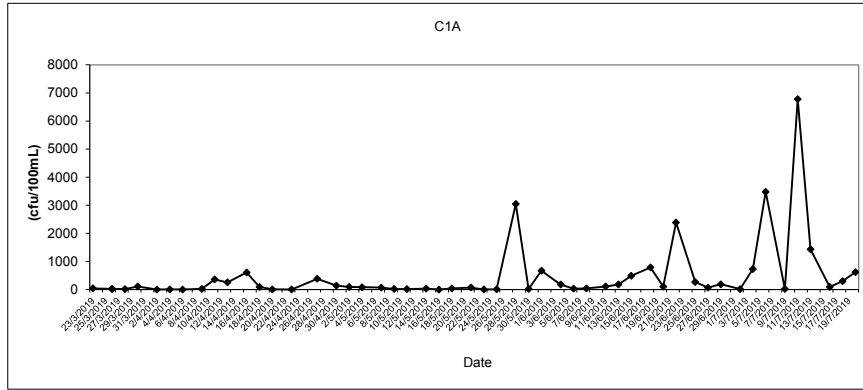
Laboratory Analysis TIN (Depth average) at Mid-Ebb Tide



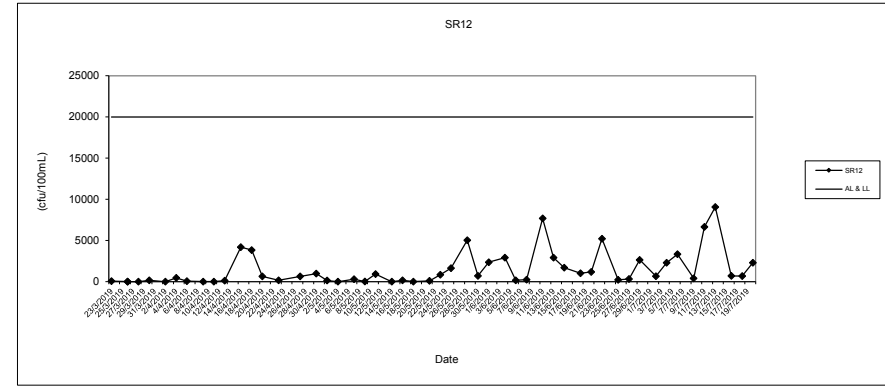
Laboratory Analysis TIN (Depth average) at Mid-Ebb Tide



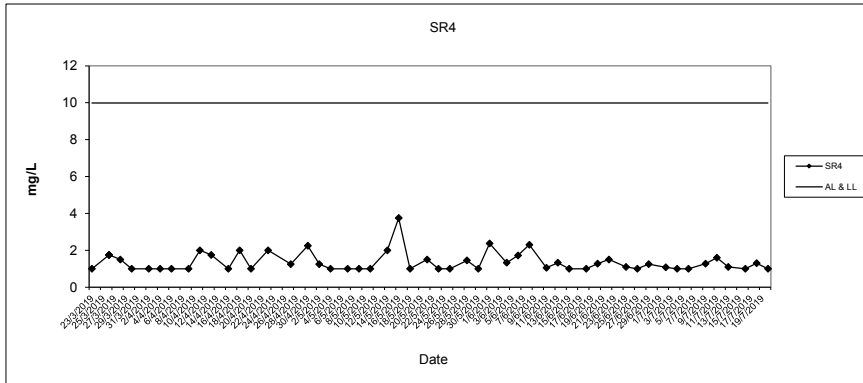
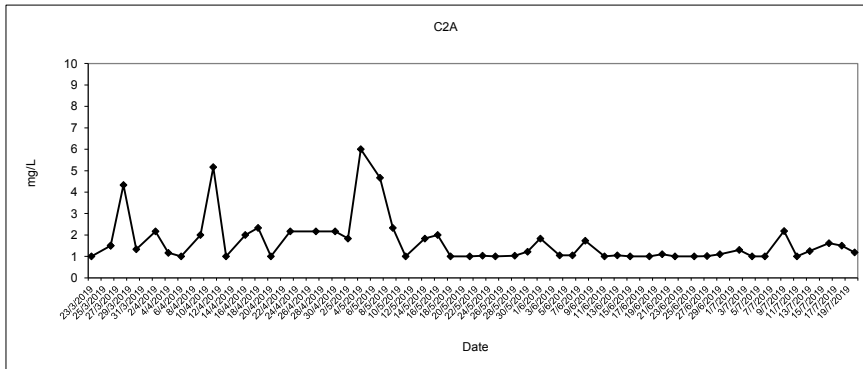
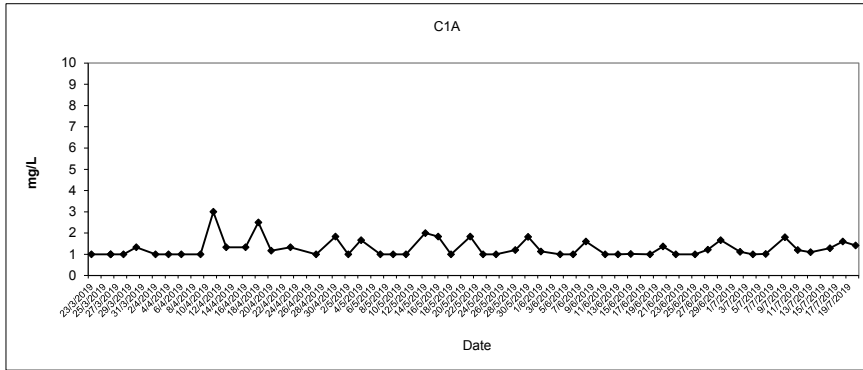
E.coli (Depth average) at Mid-Ebb Tide



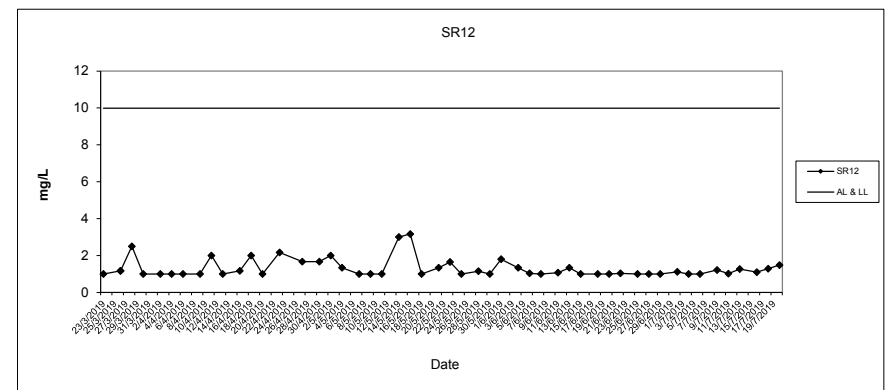
E.coli (Depth average) at Mid-Ebb Tide



BOD<sub>5</sub> (Depth average) at Mid-Ebb Tide

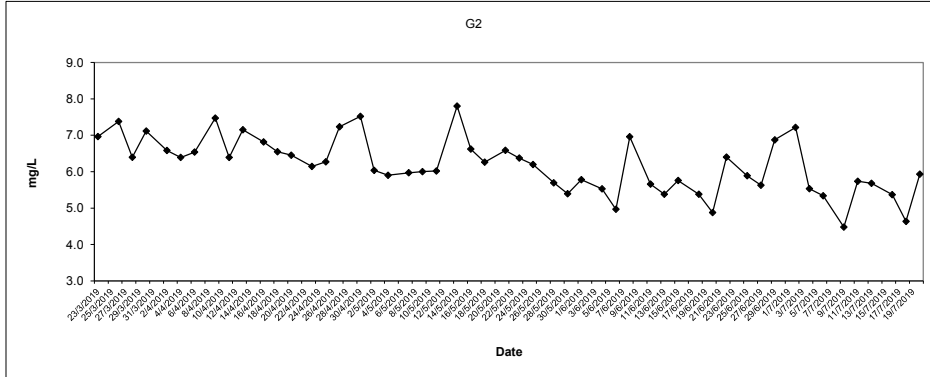
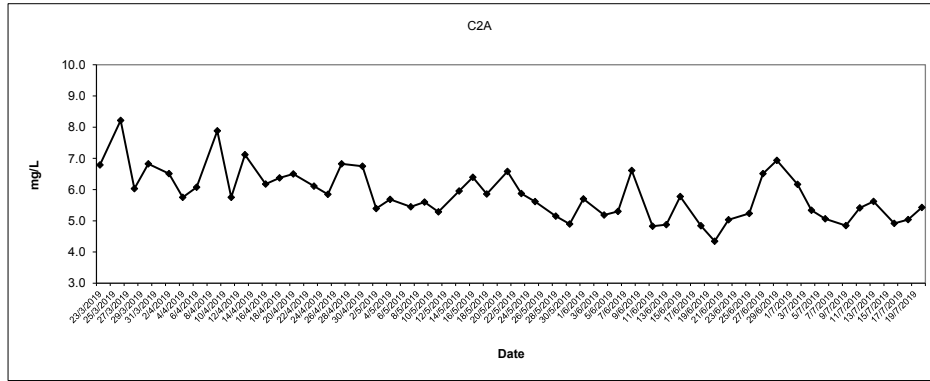
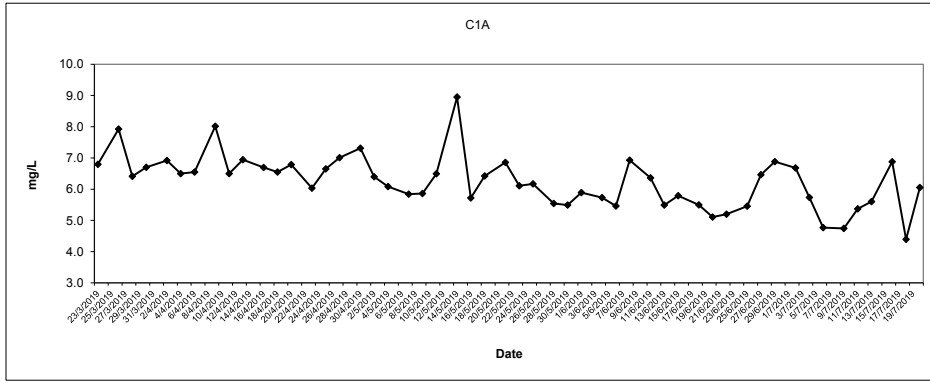


BOD<sub>5</sub> (Depth average) at Mid-Ebb Tide

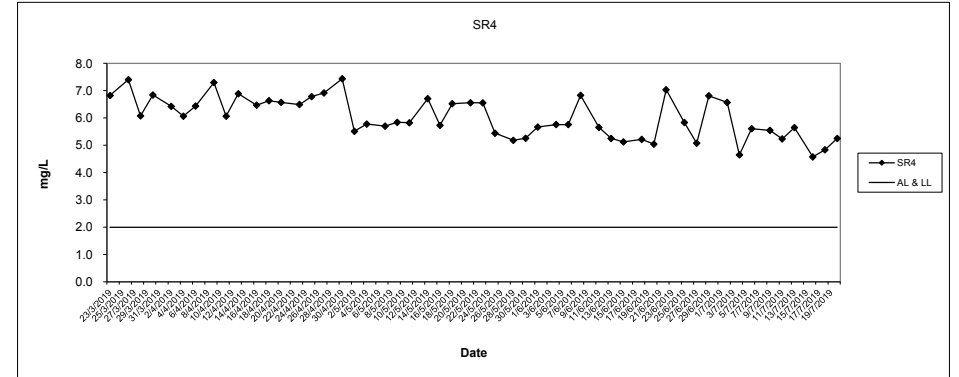
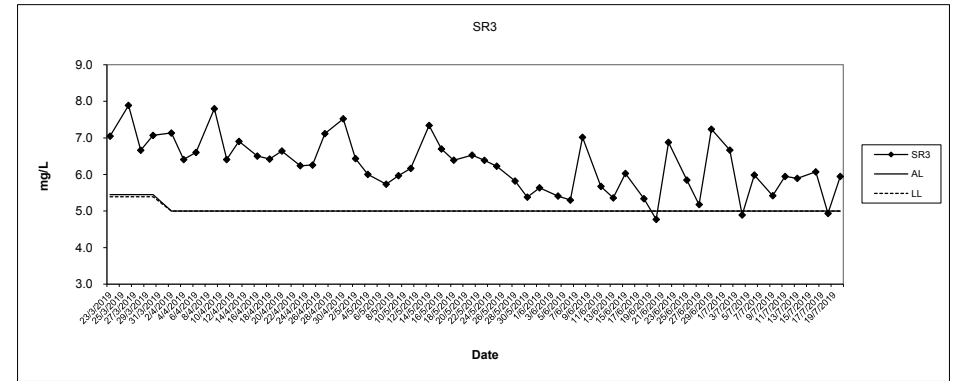
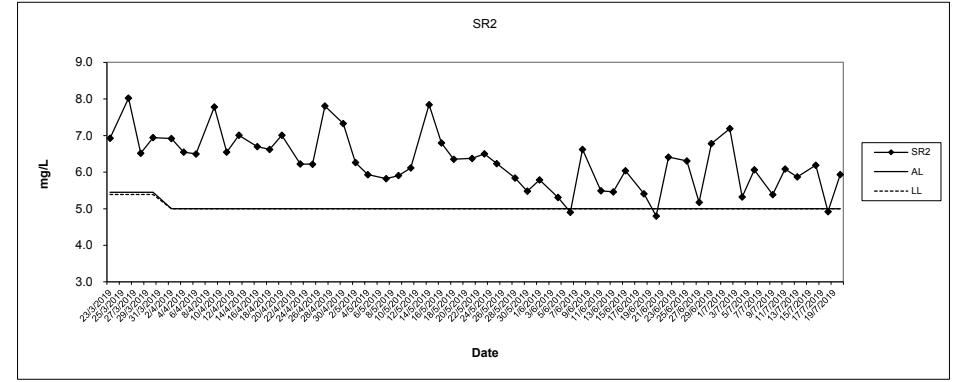




Dissolved Oxygen (Surface and Middle) at Mid-Flood Tide

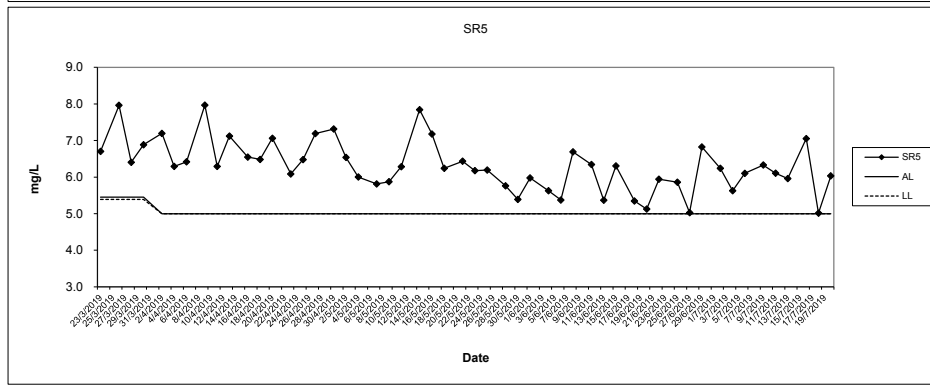


Dissolved Oxygen (Surface and Middle) at Mid-Flood Tide

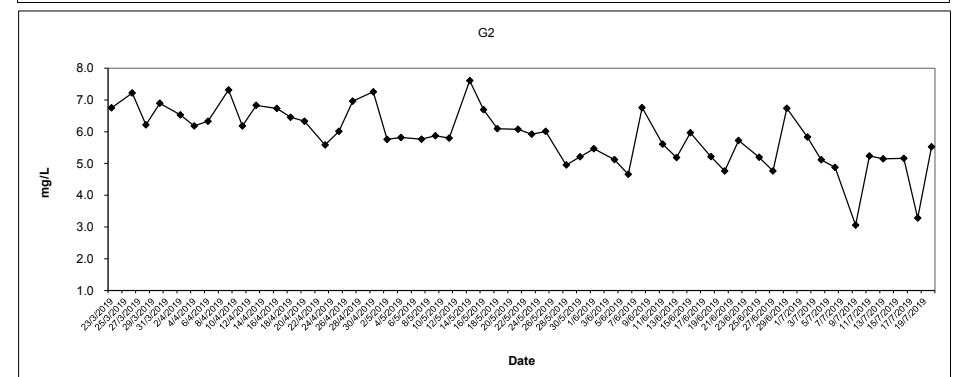
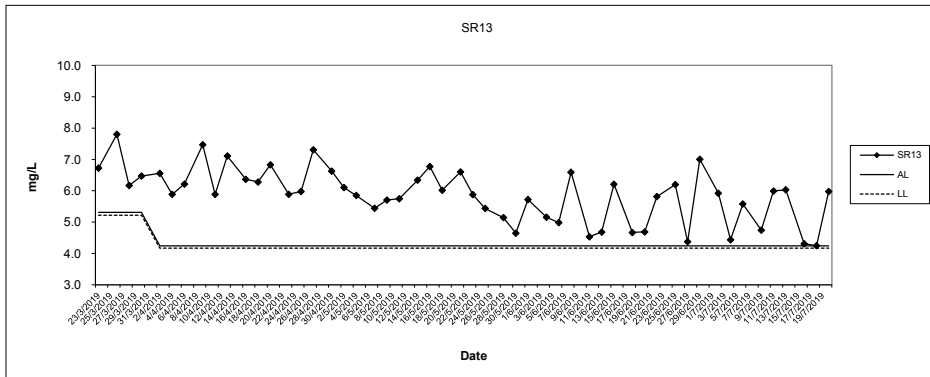
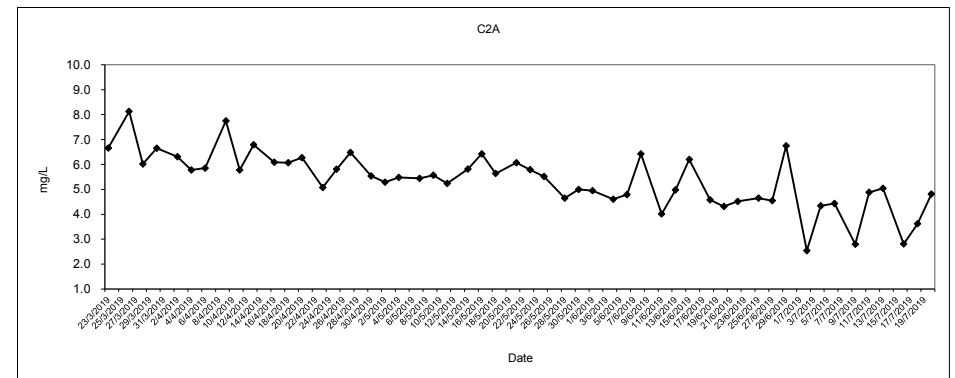
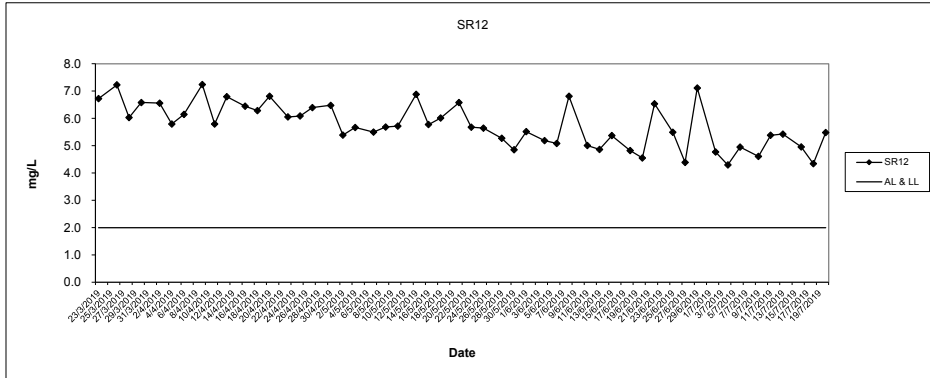
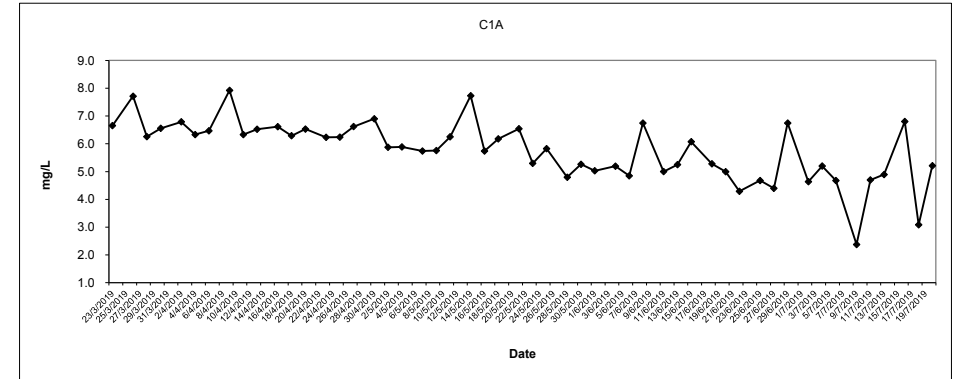




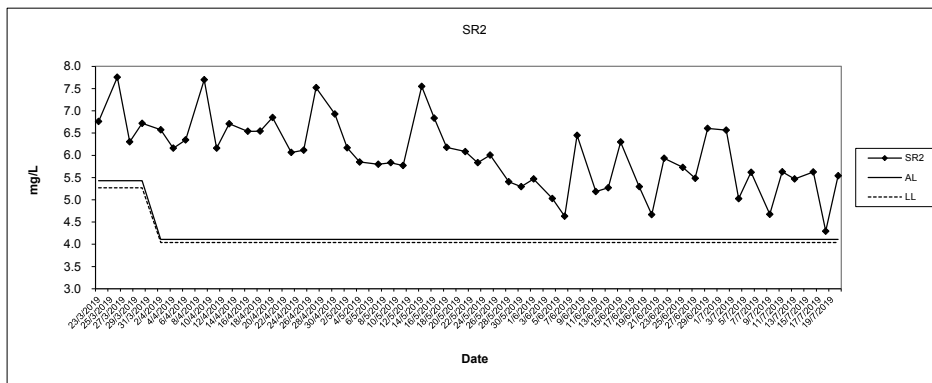
Dissolved Oxygen (Surface and Middle) at Mid-Flood Tide



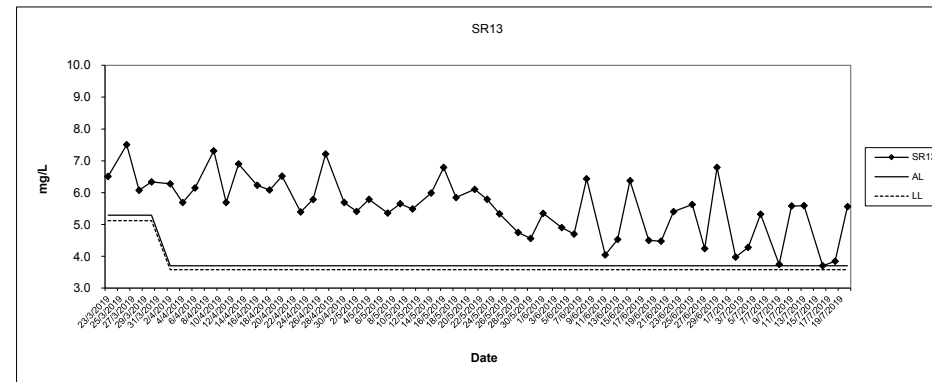
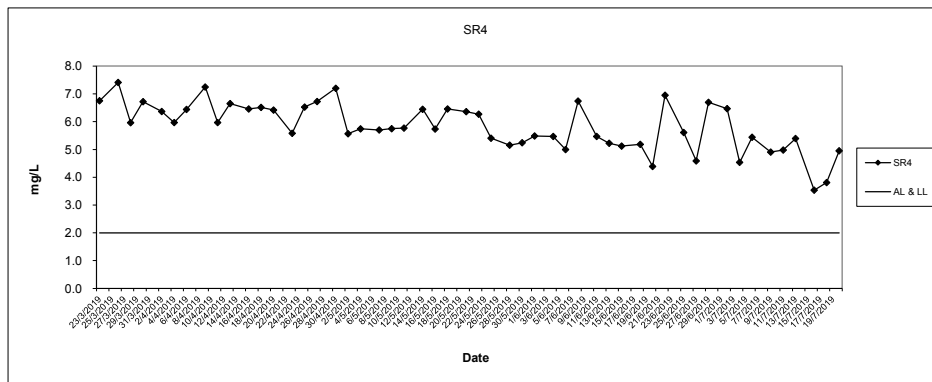
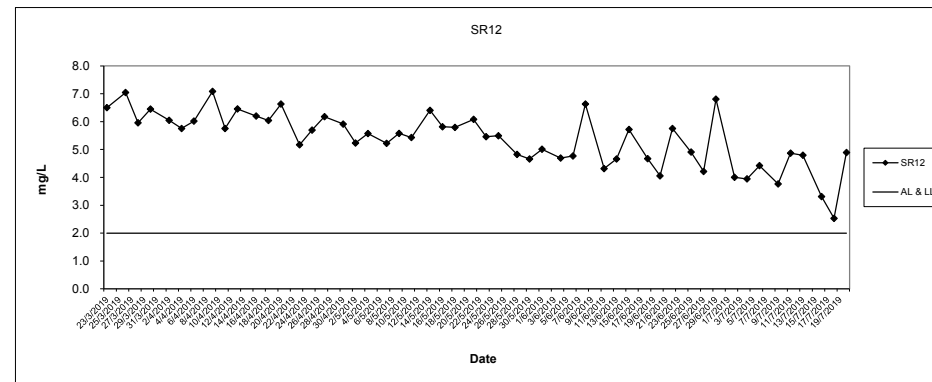
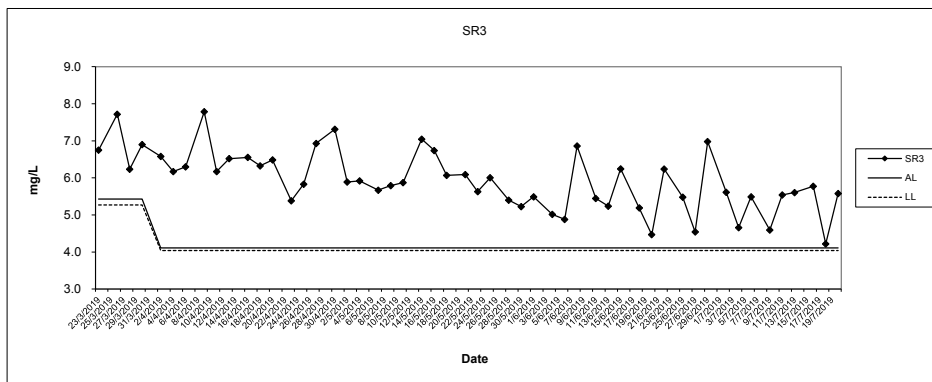
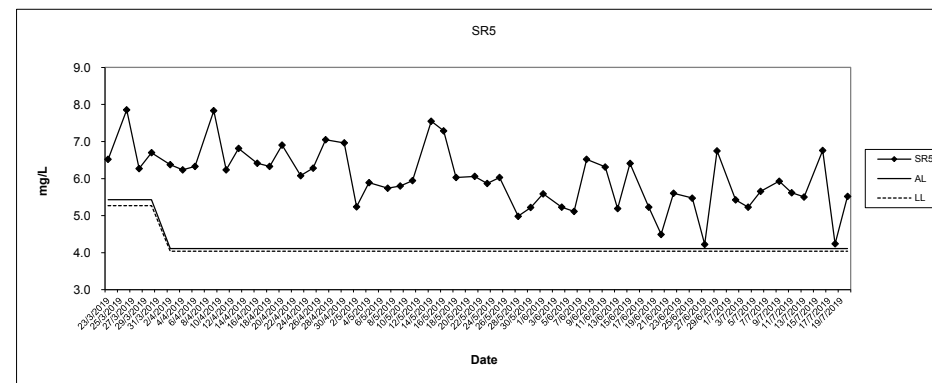
Dissolved Oxygen (Bottom) at Mid-Flood Tide



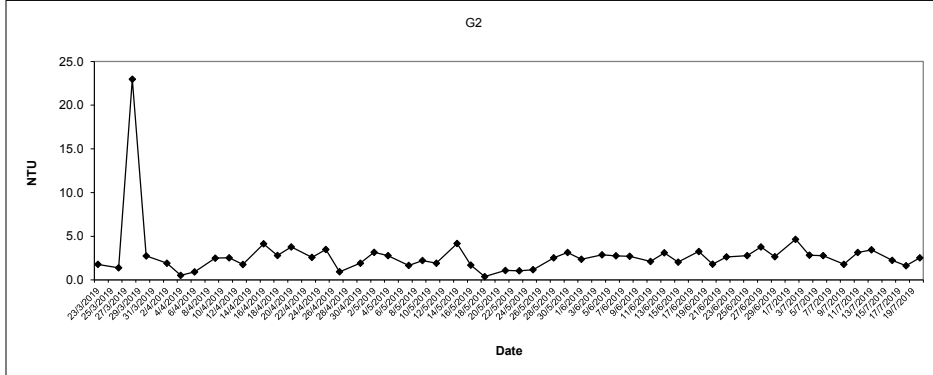
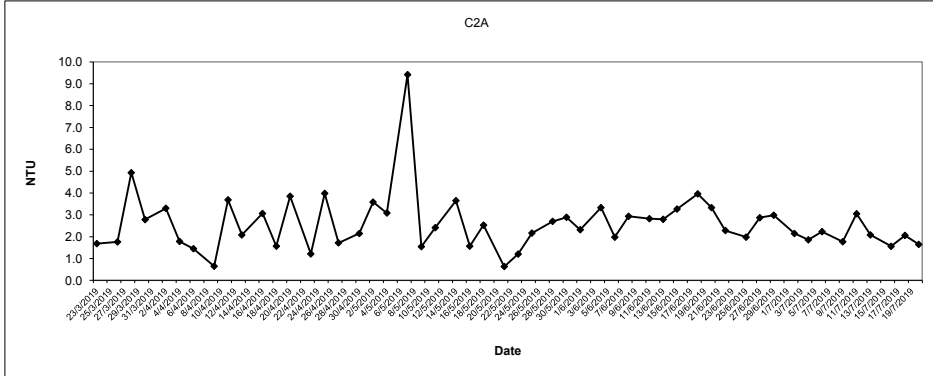
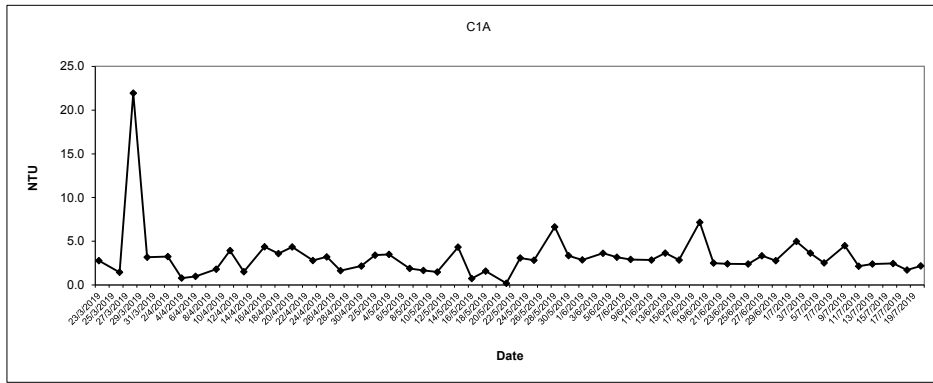
Dissolved Oxygen (Bottom) at Mid-Flood Tide



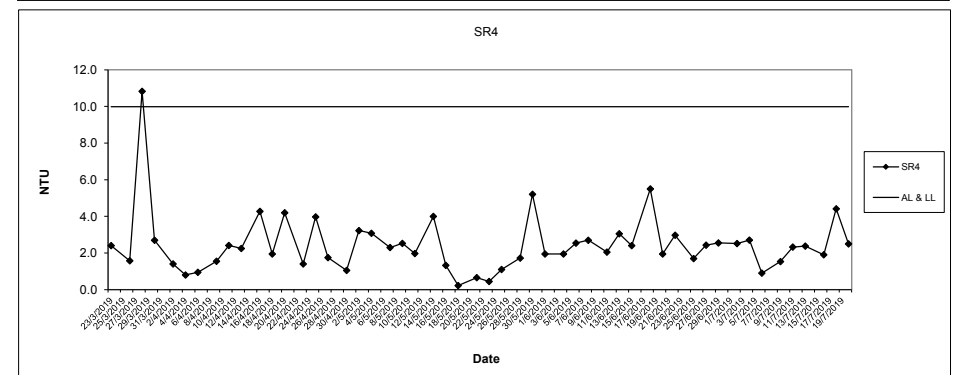
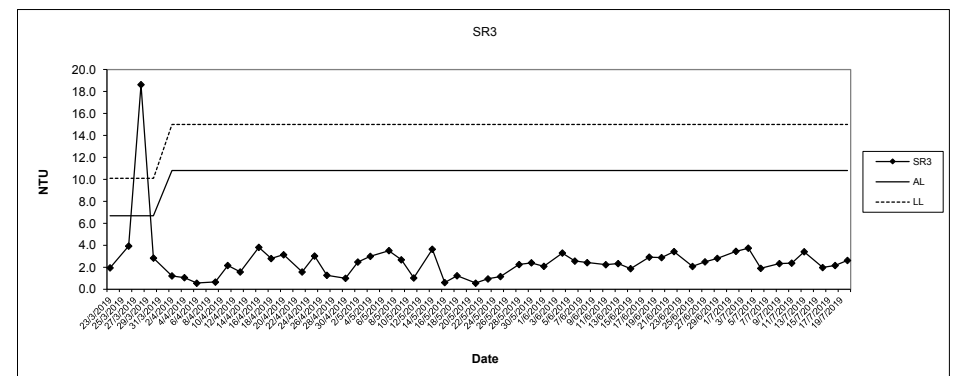
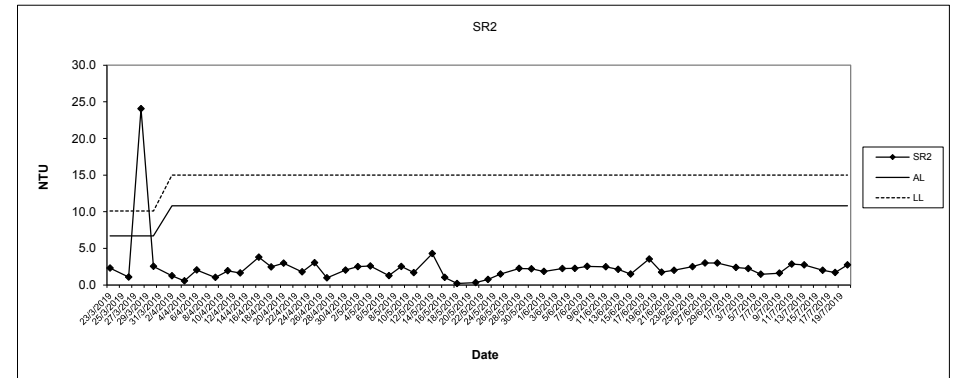
Dissolved Oxygen (Bottom) at Mid-Flood Tide



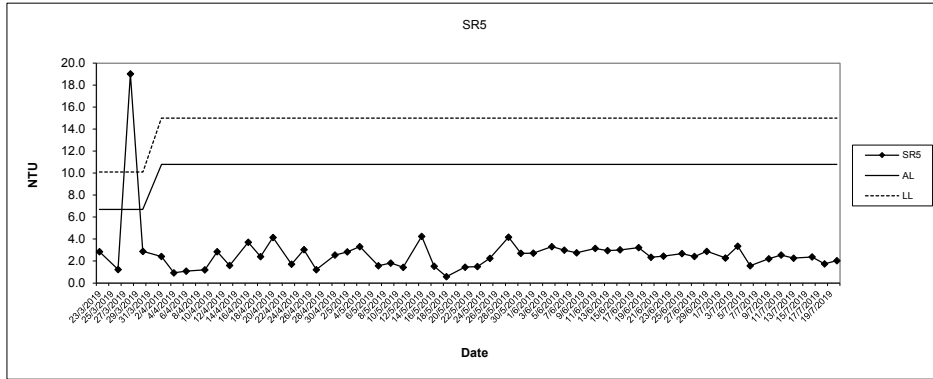
Turbidity (Depth average) at Mid-Flood Tide



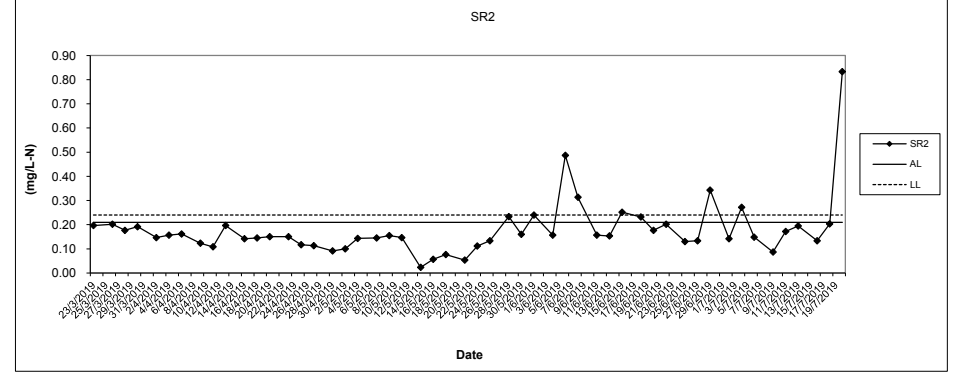
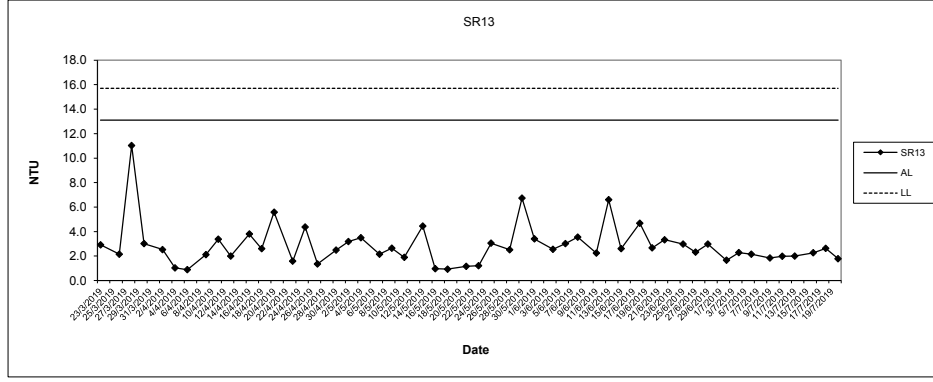
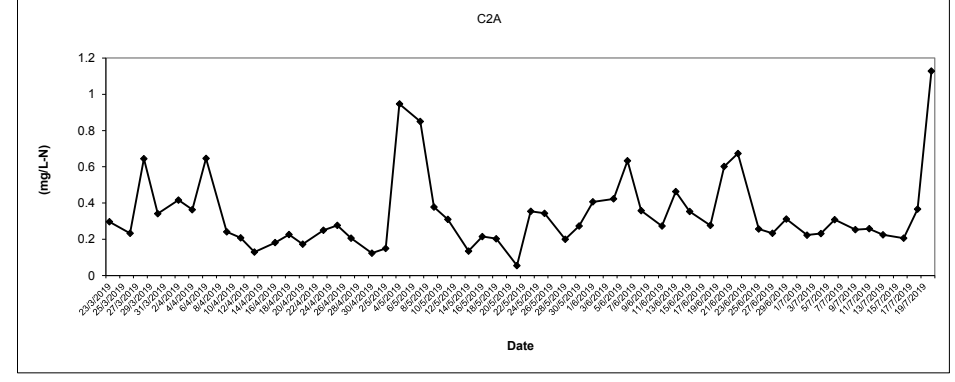
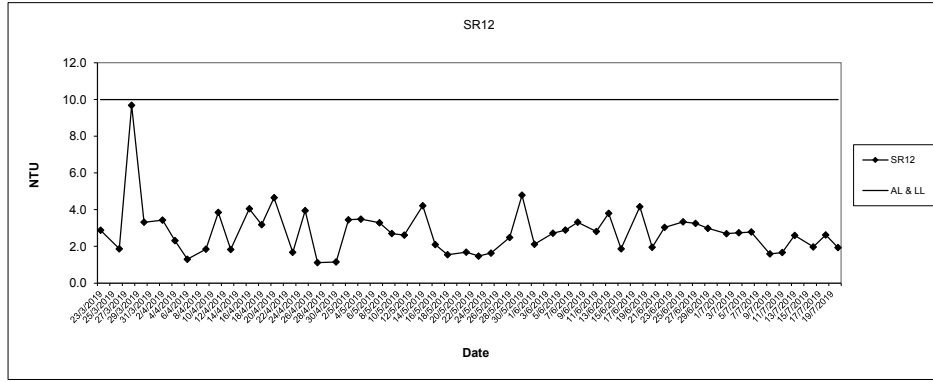
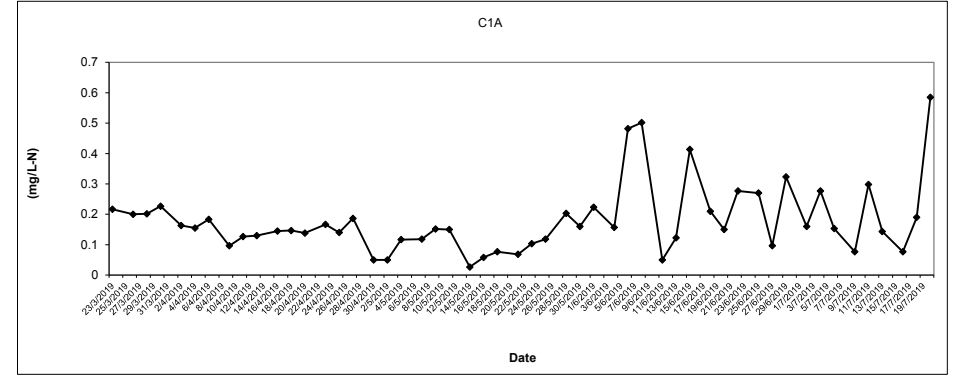
Turbidity (Depth average) at Mid-Flood Tide



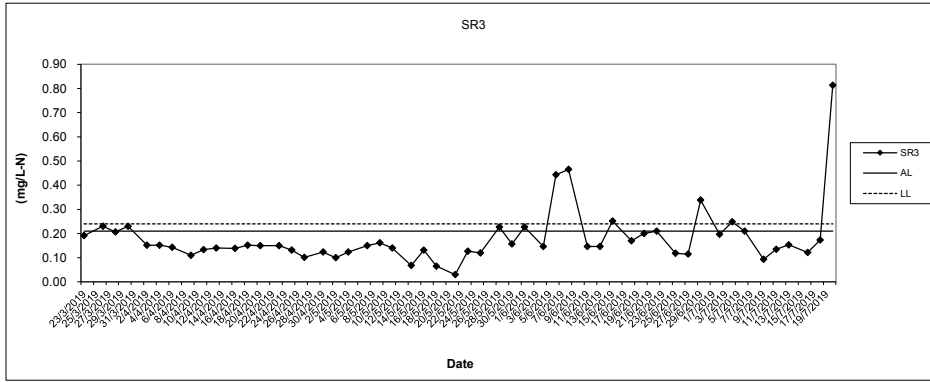
Turbidity (Depth average) at Mid-Flood Tide



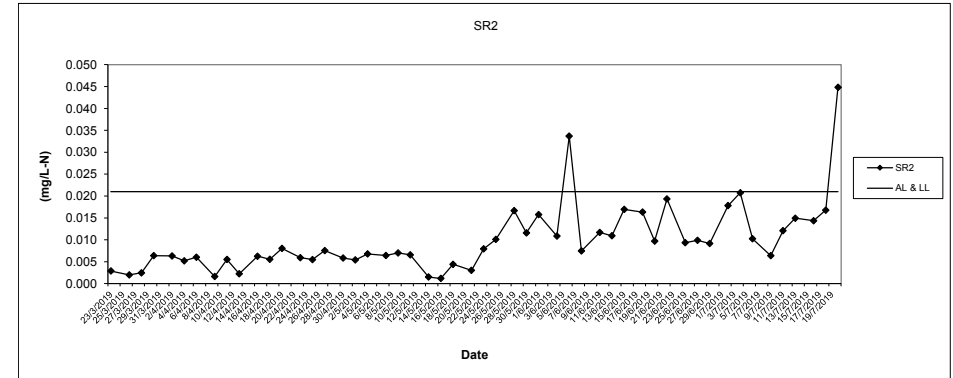
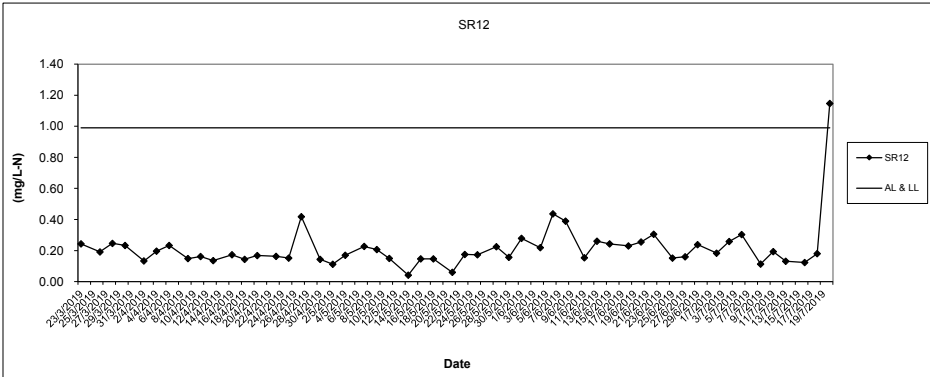
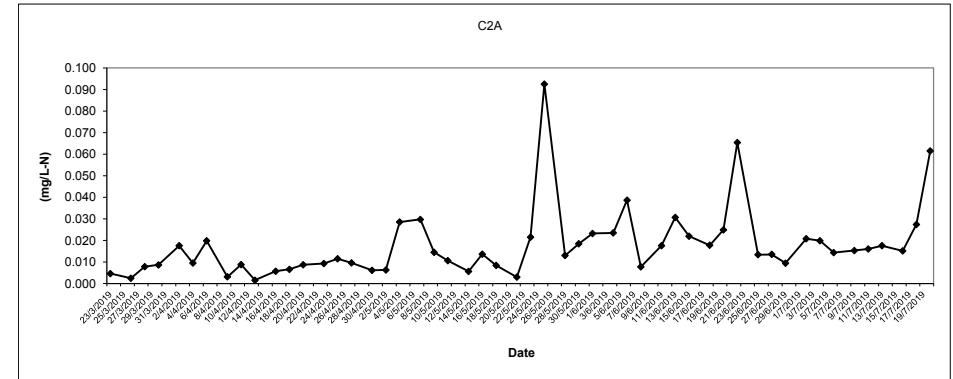
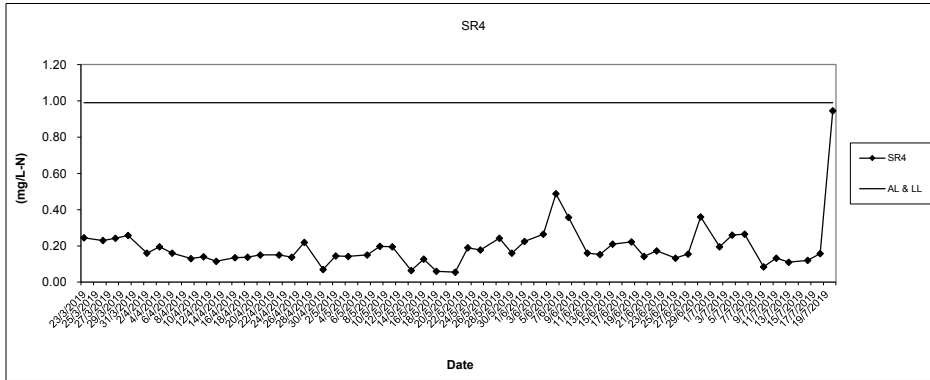
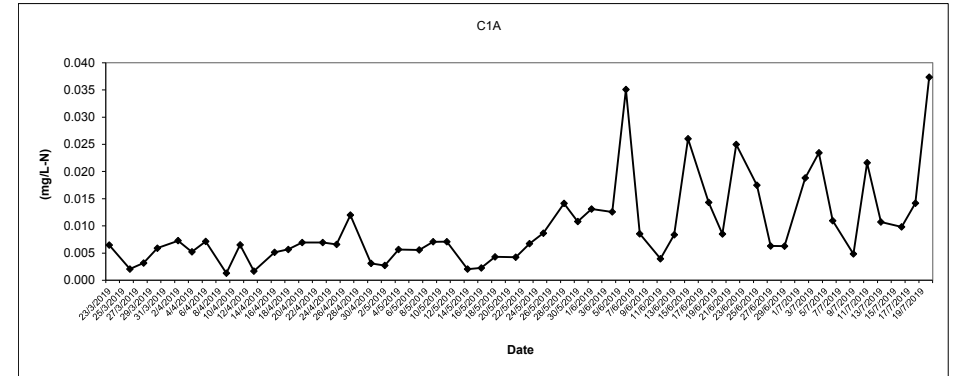
In-situ Ammonia (Depth average) at Mid-Flood Tide



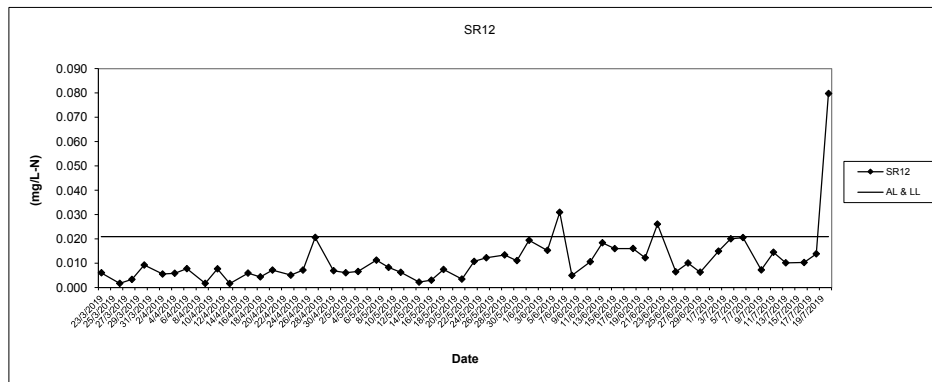
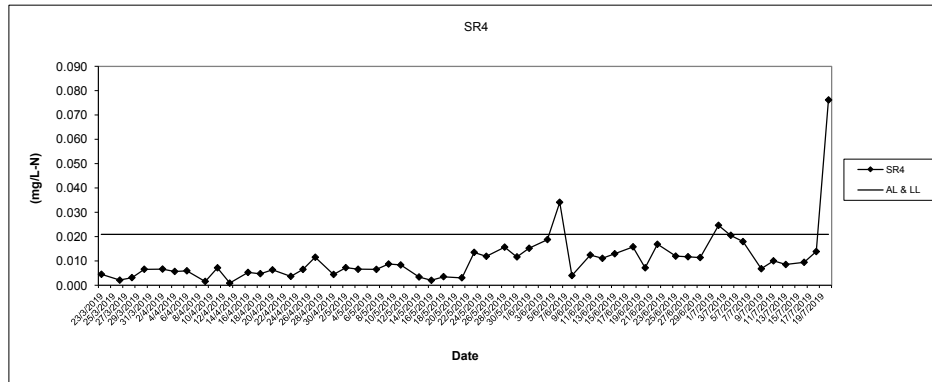
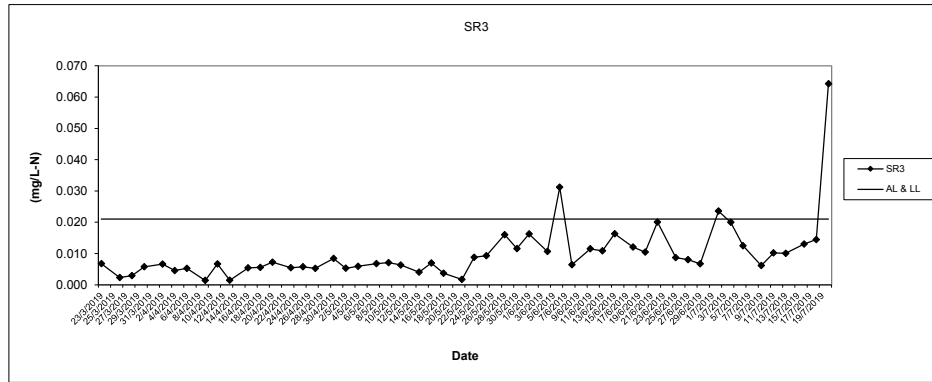
In-situ Ammonia (Depth average) at Mid-Flood Tide



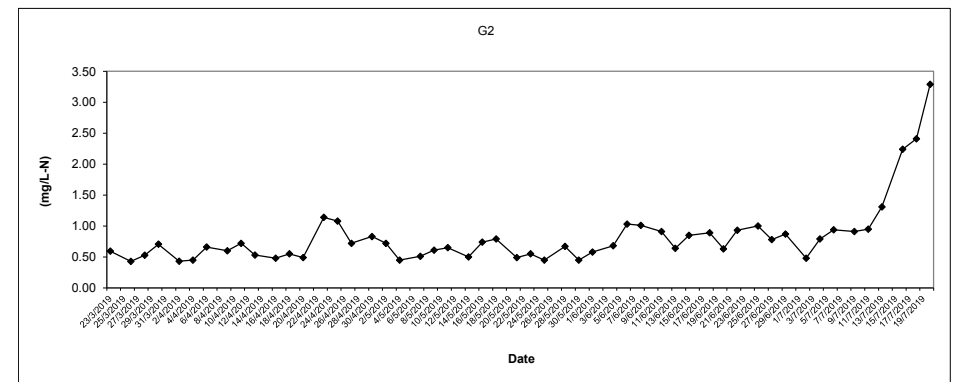
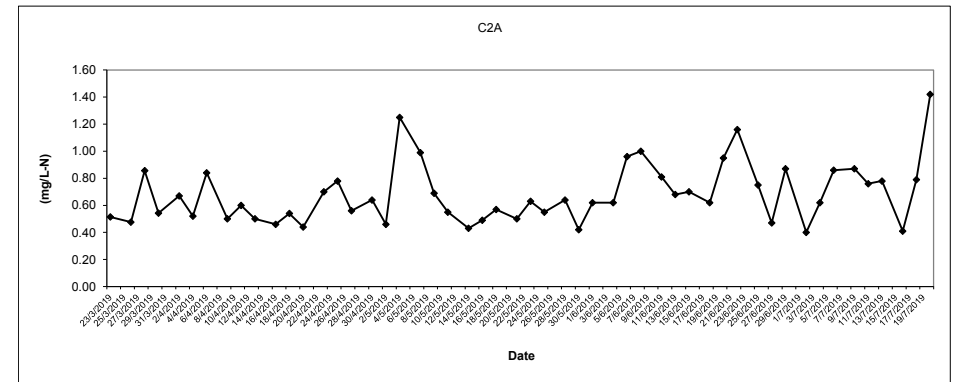
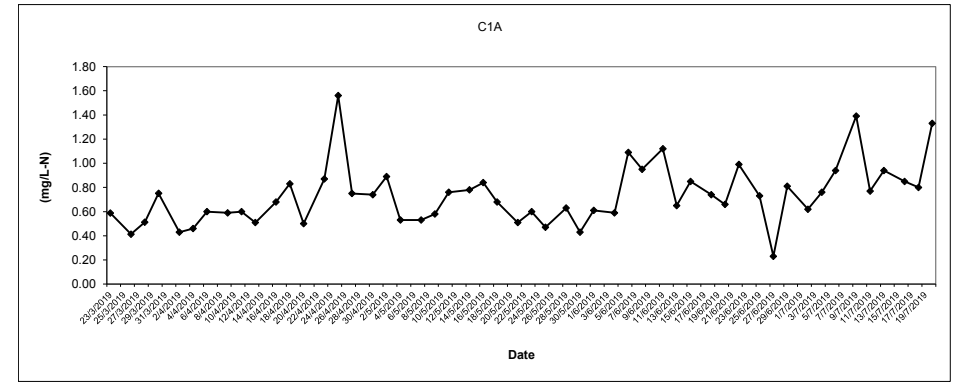
In-situ UIA (Depth average) at Mid-Flood Tide



In-situ UIA (Depth average) at Mid-Flood Tide

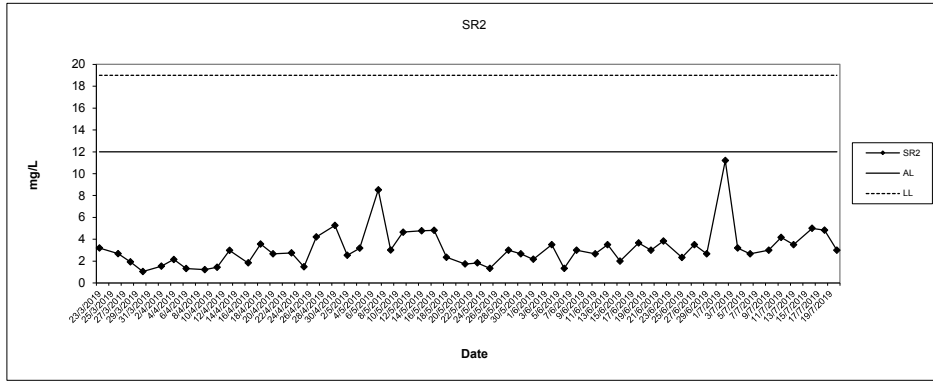


In-situ TIN (Depth average) at Mid-Flood Tide

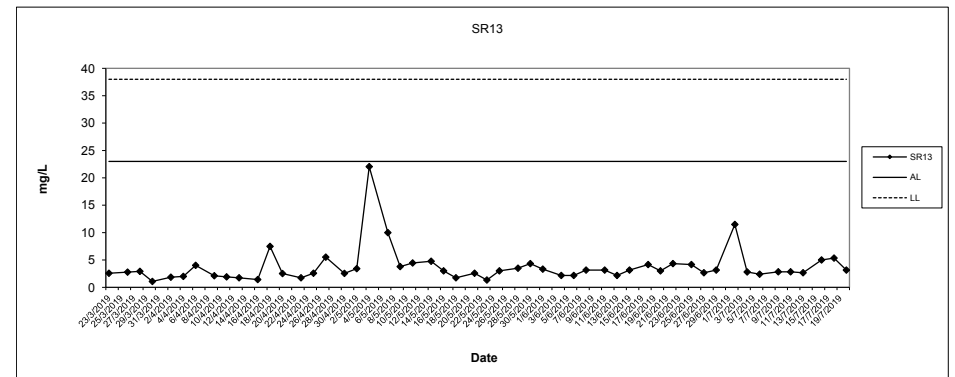
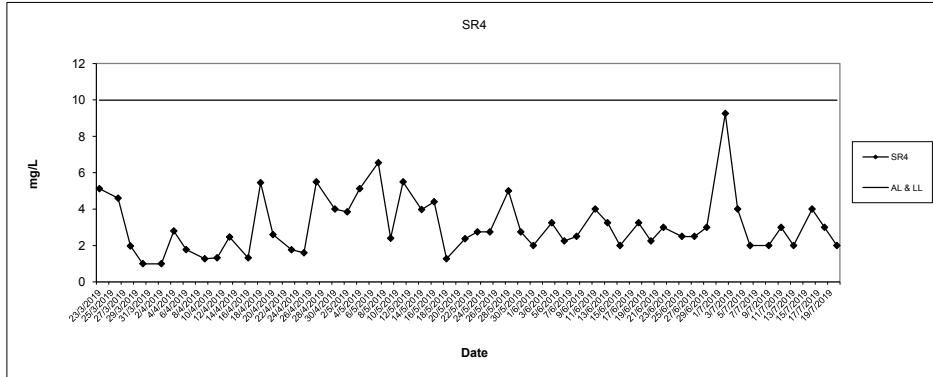
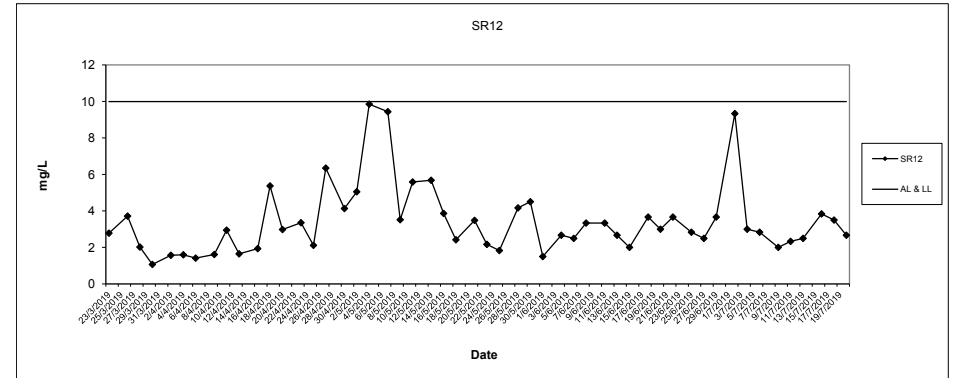
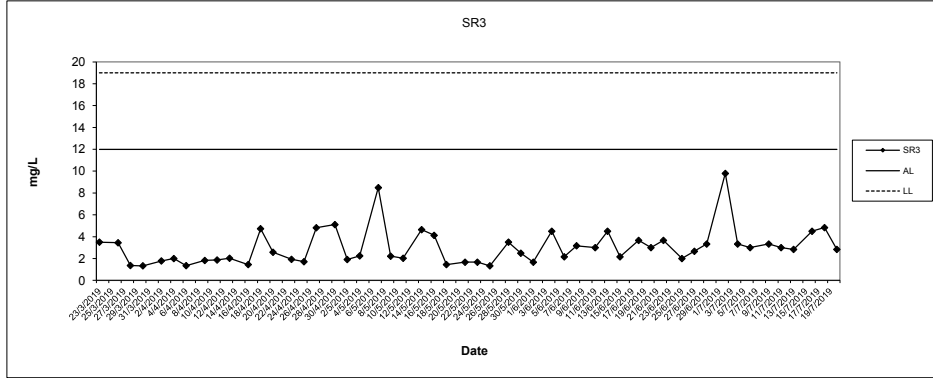
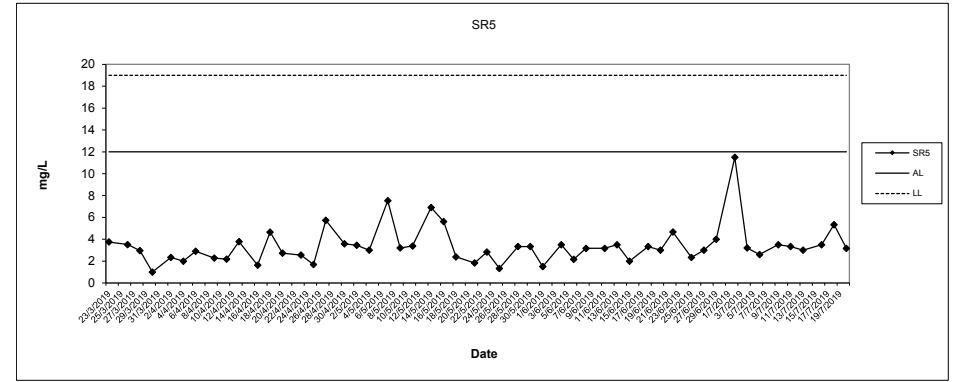




Total Suspended Solids (Depth average) at Mid-Flood Tide

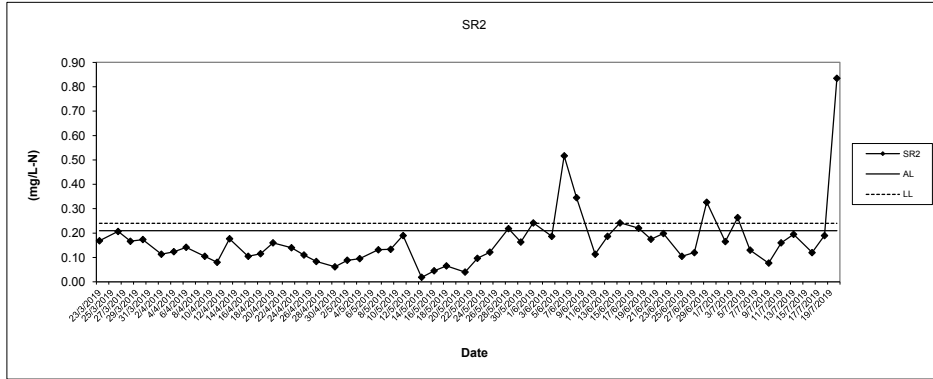
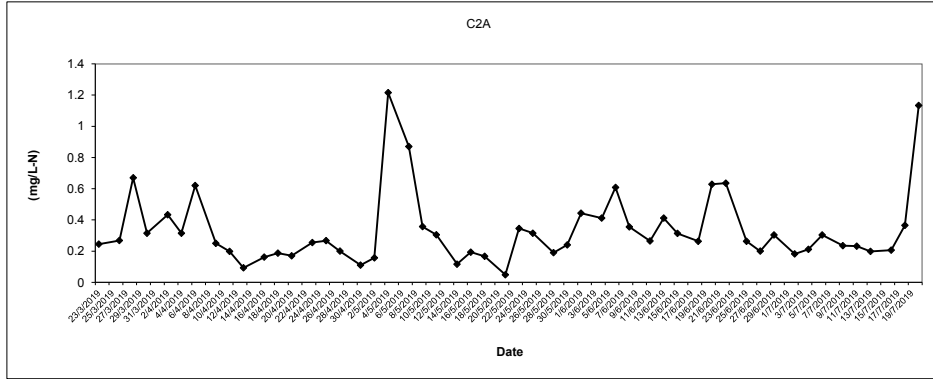
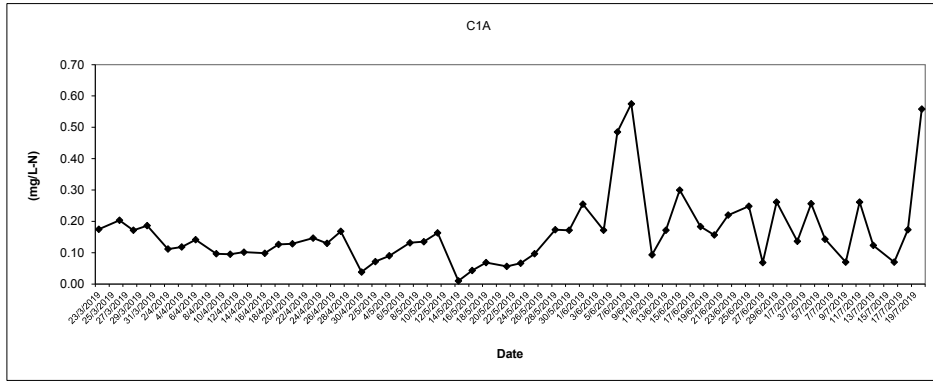


Total Suspended Solids (Depth average) at Mid-Flood Tide

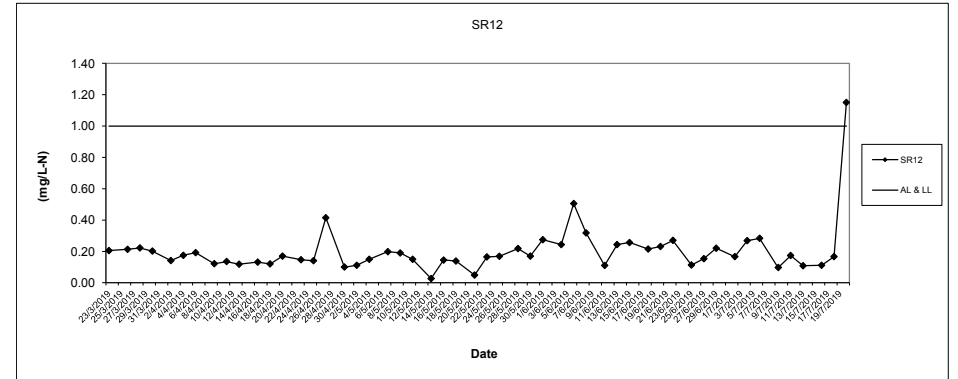
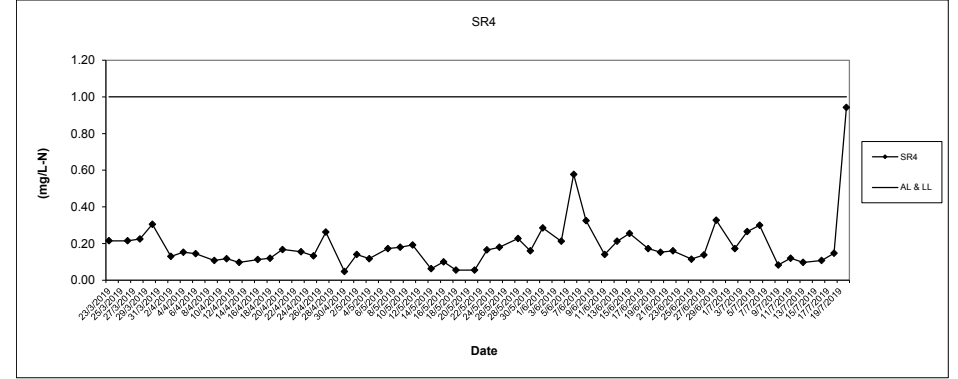
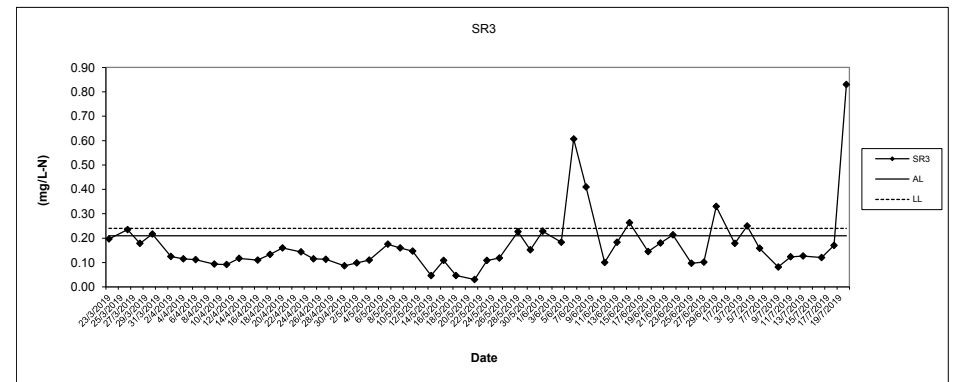




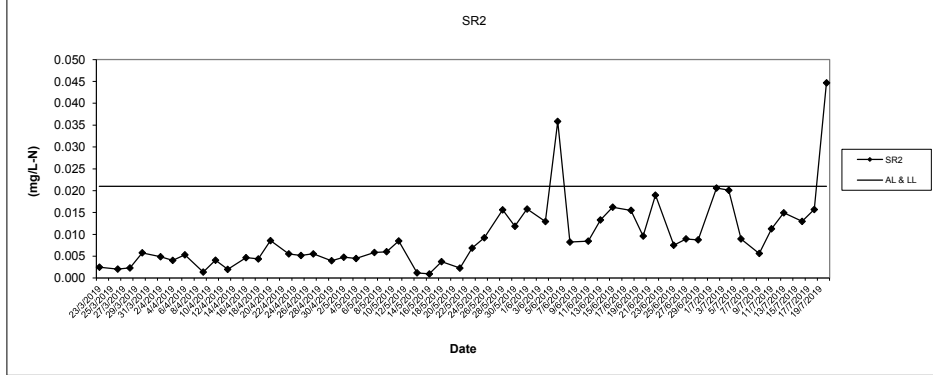
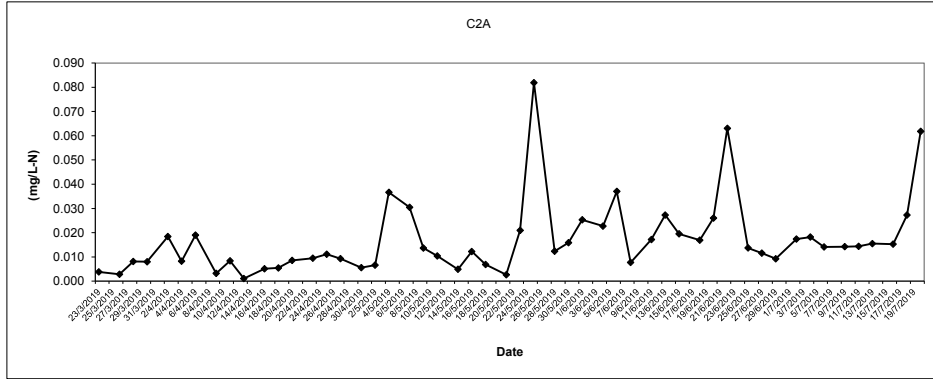
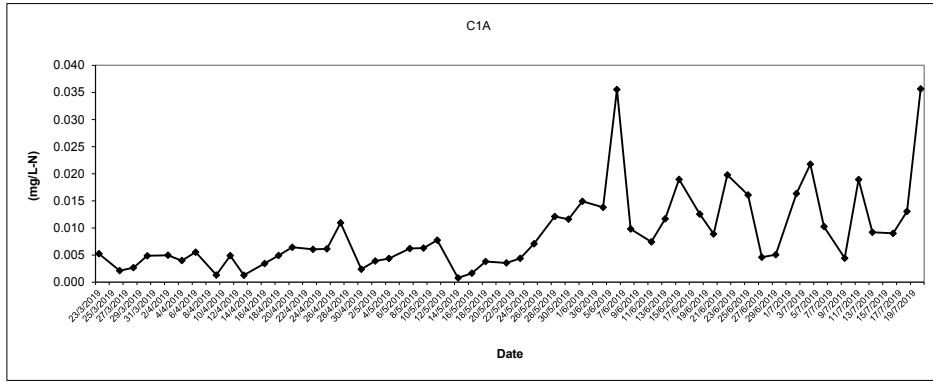
Ammonia Nitrogen (Depth average) at Mid-Flood Tide



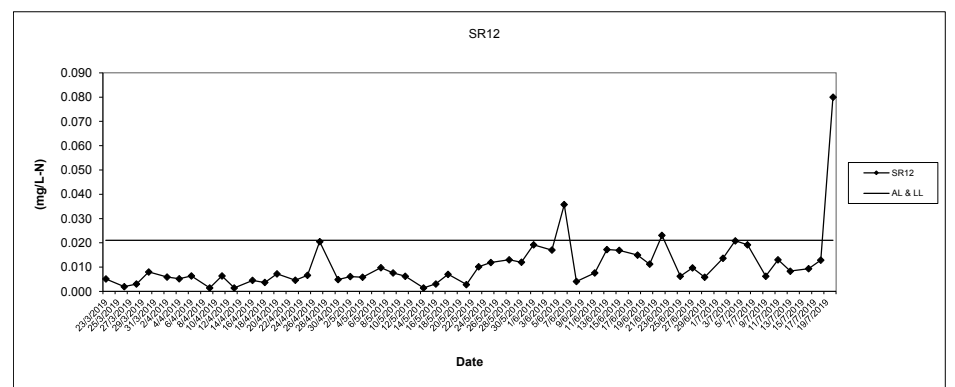
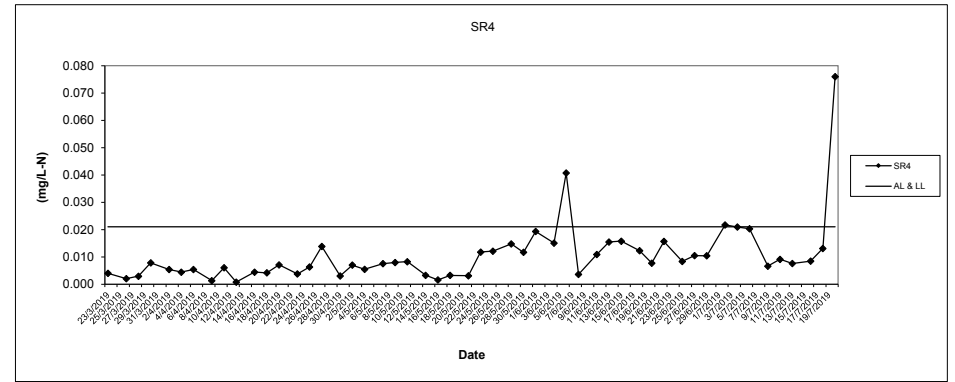
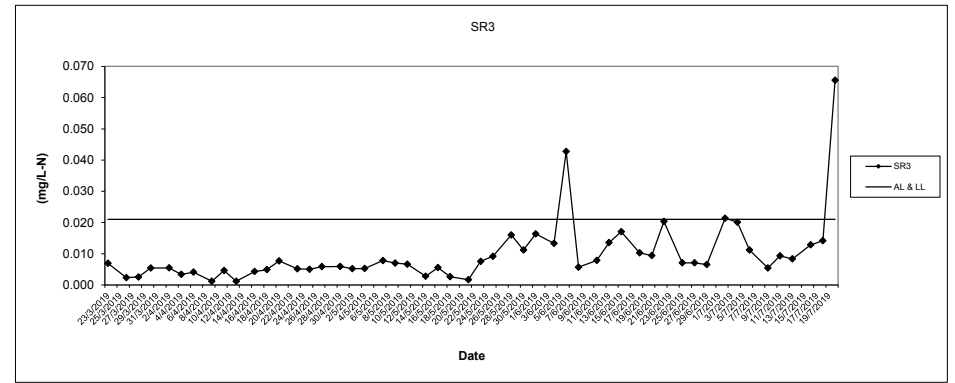
Ammonia Nitrogen (Depth average) at Mid-Flood Tide



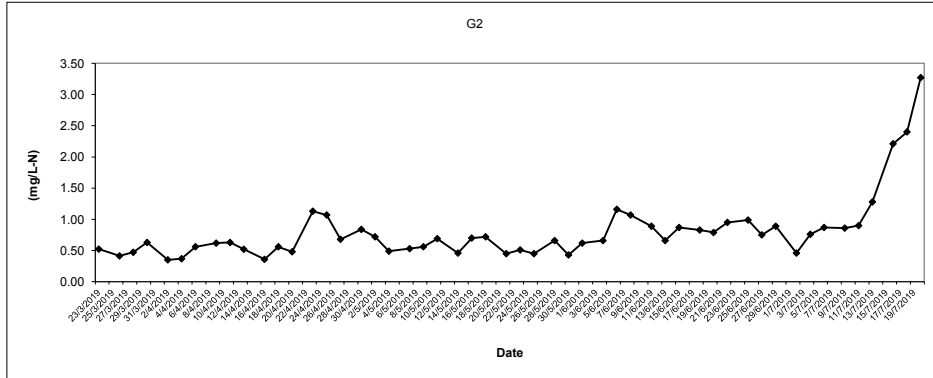
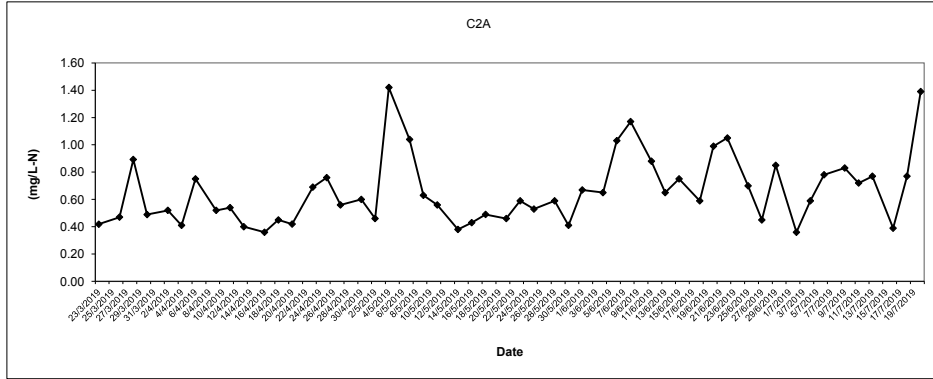
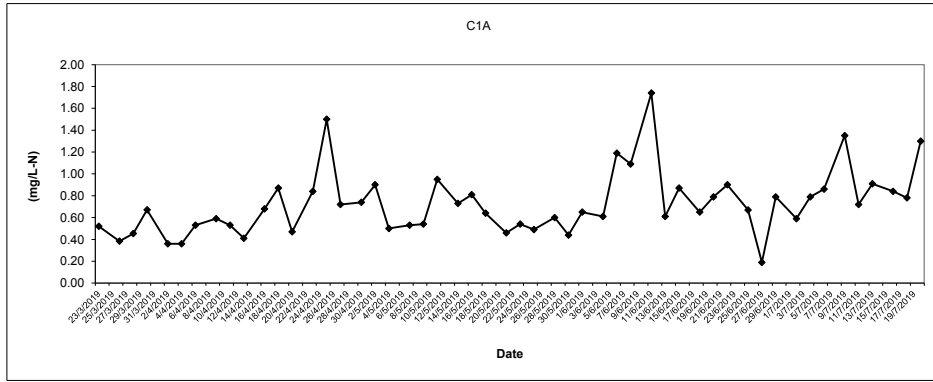
Laboratory Analysis UIA (Depth average) at Mid-Flood Tide



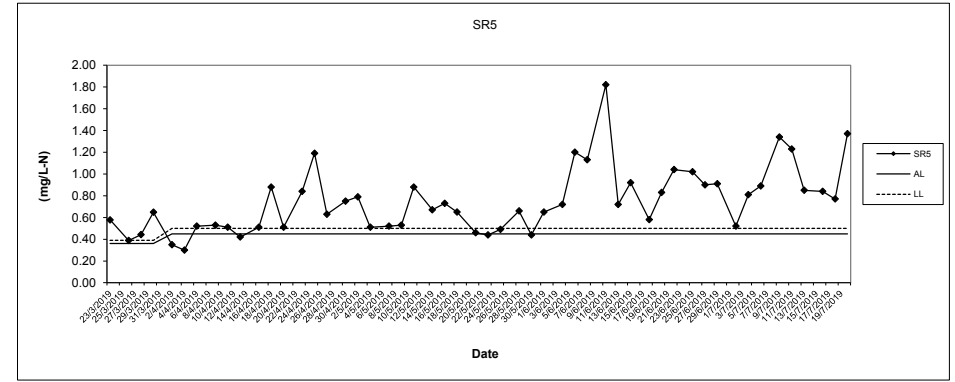
Laboratory Analysis UIA (Depth average) at Mid-Flood Tide



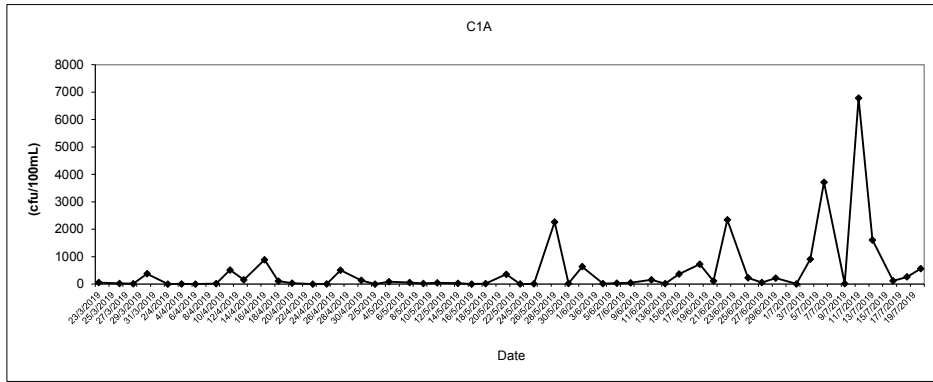
Laboratory Analysis TIN (Depth average) at Mid-Flood Tide



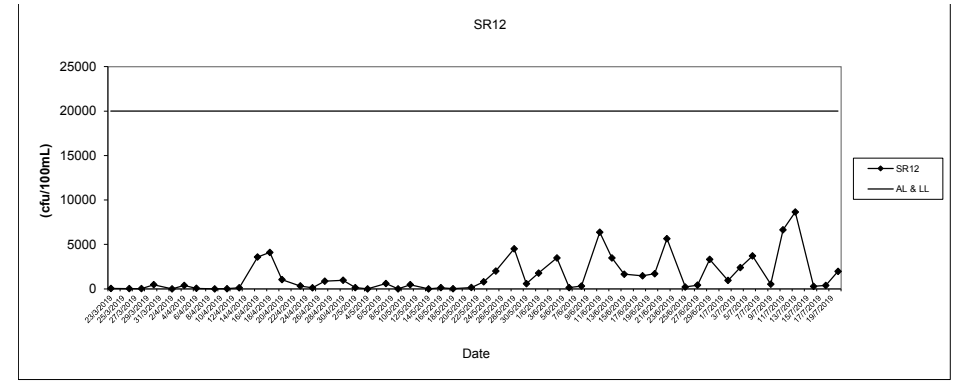
Laboratory Analysis TIN (Depth average) at Mid-Flood Tide



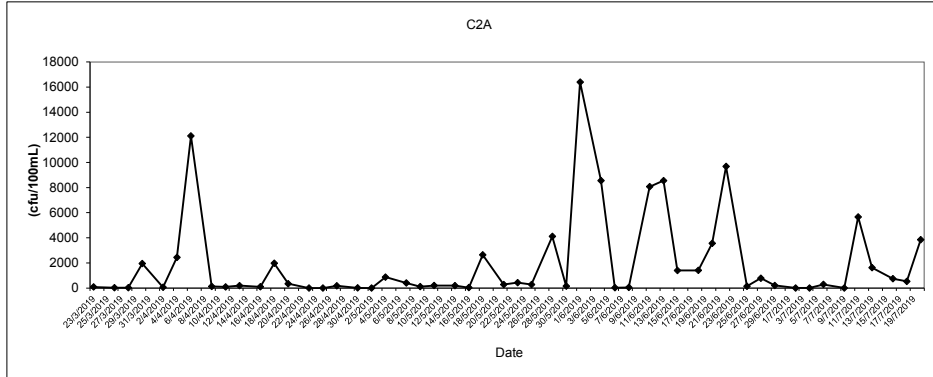
*E. coli* (Depth average) at Mid-Flood Tide



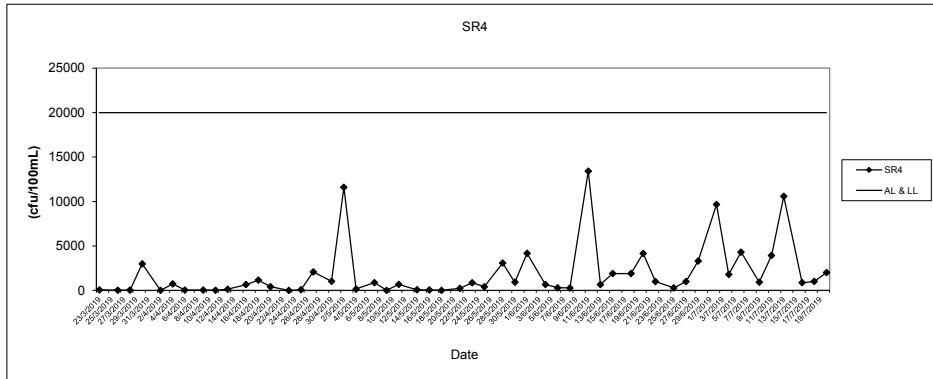
*E. coli* (Depth average) at Mid-Flood Tide



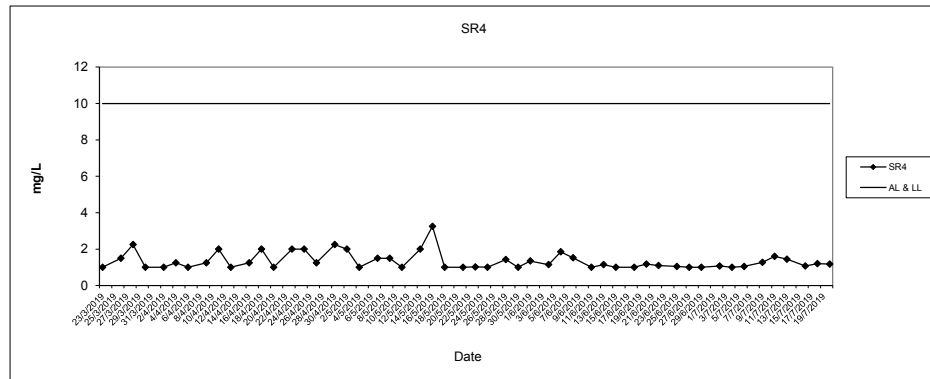
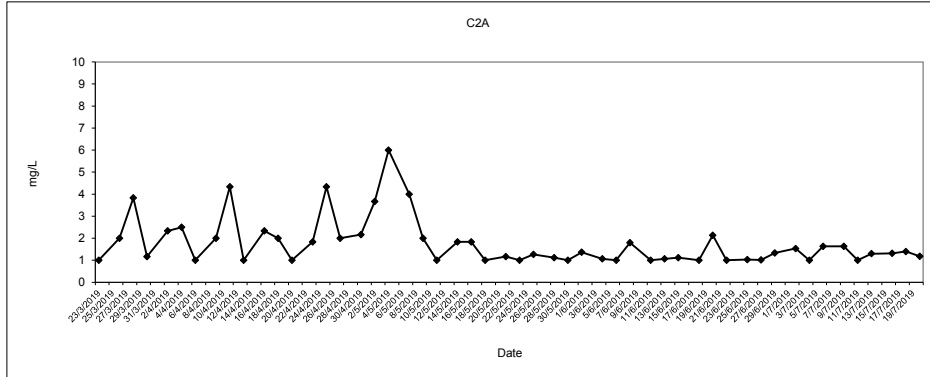
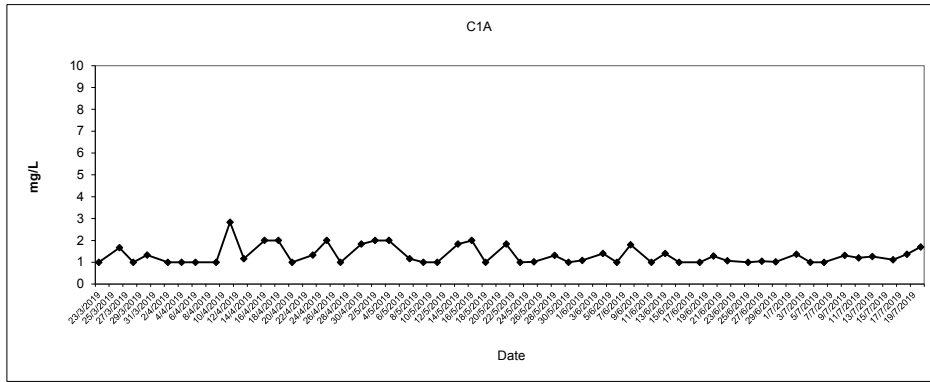
C2A



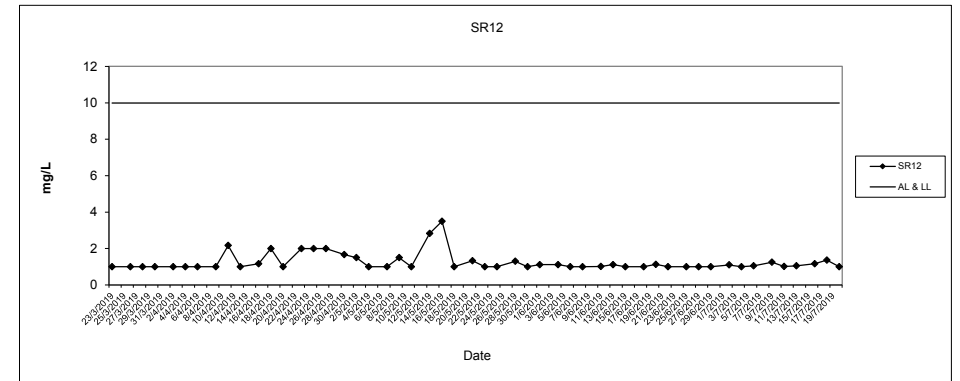
SR4



BOD<sub>5</sub> (Depth average) at Mid-Flood Tide



BOD<sub>5</sub> (Depth average) at Mid-Flood Tide





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Report No.: 0394/13/ED/0380A

### Appendix G

#### Water Quality Monitoring Results and Graphical Presentation – 24-hr Monitoring

24-hr Water Quality Monitoring

Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)	Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)	Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)	Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)
SR4	6/23/2019 0:01	28.57	63.0	4.65	4.5	SR4	6/23/2019 6:01	28.16	72.5	5.35	4.8	SR4	6/23/2019 12:01	28.39	76.5	5.63	4.3	SR4	6/23/2019 18:01	28.00	76.5	5.66	6.7
SR4	6/23/2019 0:06	28.46	60.0	4.42	5.5	SR4	6/23/2019 6:06	28.17	73.9	5.45	5.4	SR4	6/23/2019 12:06	28.23	74.0	5.46	5.1	SR4	6/23/2019 18:06	27.97	75.8	5.61	4.0
SR4	6/23/2019 0:11	28.45	59.7	4.40	6.3	SR4	6/23/2019 6:11	28.22	75.6	5.59	5.5	SR4	6/23/2019 12:11	28.29	74.7	5.51	4.9	SR4	6/23/2019 18:11	27.95	75.4	5.59	4.9
SR4	6/23/2019 0:16	28.46	60.6	4.46	5.0	SR4	6/23/2019 6:16	28.18	75.1	5.53	6.7	SR4	6/23/2019 12:16	28.31	75.3	5.55	7.3	SR4	6/23/2019 18:16	27.97	76.3	5.65	4.6
SR4	6/23/2019 0:21	28.52	61.5	4.52	6.9	SR4	6/23/2019 6:21	28.20	77.3	5.70	4.3	SR4	6/23/2019 12:21	28.30	75.2	5.55	5.2	SR4	6/23/2019 18:21	28.00	75.3	5.57	5.2
SR4	6/23/2019 0:26	28.50	72.8	5.22	7.4	SR4	6/23/2019 6:26	28.21	78.0	5.75	5.2	SR4	6/23/2019 12:26	28.38	76.5	5.64	4.4	SR4	6/23/2019 18:26	28.01	76.5	5.66	5.8
SR4	6/23/2019 0:31	28.52	67.4	4.82	5.1	SR4	6/23/2019 6:31	28.21	78.0	5.75	6.0	SR4	6/23/2019 12:31	28.35	76.0	5.60	5.6	SR4	6/23/2019 18:31	28.03	75.5	5.59	6.6
SR4	6/23/2019 0:36	28.53	64.0	4.58	6.7	SR4	6/23/2019 6:36	28.15	75.8	5.58	5.1	SR4	6/23/2019 12:36	28.32	75.1	5.55	5.4	SR4	6/23/2019 18:36	28.02	75.0	5.55	5.2
SR4	6/23/2019 0:41	28.52	64.2	4.59	5.4	SR4	6/23/2019 6:41	28.16	74.5	5.49	4.6	SR4	6/23/2019 12:41	28.32	75.5	5.56	4.7	SR4	6/23/2019 18:41	28.05	75.7	5.61	6.5
SR4	6/23/2019 0:46	28.56	66.2	4.72	5.0	SR4	6/23/2019 6:46	28.15	76.0	5.60	4.5	SR4	6/23/2019 12:46	28.33	76.3	5.63	4.0	SR4	6/23/2019 18:46	28.10	76.1	5.63	5.0
SR4	6/23/2019 0:51	28.58	67.6	4.83	5.8	SR4	6/23/2019 6:51	28.15	76.2	5.62	6.9	SR4	6/23/2019 12:51	28.38	76.3	5.62	7.6	SR4	6/23/2019 18:51	28.09	76.1	5.63	4.5
SR4	6/23/2019 0:56	28.61	68.0	4.85	4.1	SR4	6/23/2019 6:56	28.10	76.1	5.62	5.1	SR4	6/23/2019 12:56	28.29	75.6	5.58	5.7	SR4	6/23/2019 18:56	28.05	77.1	5.70	6.0
SR4	6/23/2019 1:01	28.61	69.0	4.92	5.4	SR4	6/23/2019 7:01	28.13	76.2	5.62	5.2	SR4	6/23/2019 13:01	28.36	76.4	5.63	6.7	SR4	6/23/2019 19:01	28.13	76.1	5.63	7.6
SR4	6/23/2019 1:06	28.63	69.6	4.96	5.1	SR4	6/23/2019 7:06	28.14	74.6	5.50	6.1	SR4	6/23/2019 13:06	28.34	76.2	5.62	4.9	SR4	6/23/2019 19:06	28.09	77.2	5.71	4.8
SR4	6/23/2019 1:11	28.65	70.9	5.05	3.4	SR4	6/23/2019 7:11	28.15	75.2	5.55	5.8	SR4	6/23/2019 13:11	28.26	75.2	5.55	7.5	SR4	6/23/2019 19:11	28.19	76.3	5.65	4.0
SR4	6/23/2019 1:16	28.54	70.3	5.01	5.1	SR4	6/23/2019 7:16	28.15	78.4	5.79	4.6	SR4	6/23/2019 13:16	28.38	75.9	5.59	5.7	SR4	6/23/2019 19:16	28.28	75.4	5.58	5.0
SR4	6/23/2019 1:21	28.66	80.4	5.76	5.2	SR4	6/23/2019 7:21	28.13	76.0	5.60	6.2	SR4	6/23/2019 13:21	28.34	75.4	5.56	6.3	SR4	6/23/2019 19:21	28.42	75.9	5.62	4.7
SR4	6/23/2019 1:26	28.65	80.2	5.75	5.2	SR4	6/23/2019 7:26	28.12	77.2	5.70	4.2	SR4	6/23/2019 13:26	28.35	74.8	5.51	6.4	SR4	6/23/2019 19:26	28.40	75.7	5.60	4.6
SR4	6/23/2019 1:31	28.65	80.0	5.73	5.2	SR4	6/23/2019 7:31	28.12	77.3	5.70	7.1	SR4	6/23/2019 13:31	28.35	75.7	5.57	4.7	SR4	6/23/2019 19:31	28.38	75.9	5.62	6.0
SR4	6/23/2019 1:36	28.63	79.9	5.73	6.4	SR4	6/23/2019 7:36	28.12	76.9	5.67	6.1	SR4	6/23/2019 13:36	28.32	74.0	5.46	5.3	SR4	6/23/2019 19:36	28.36	75.6	5.60	6.4
SR4	6/23/2019 1:41	28.65	80.1	5.74	6.7	SR4	6/23/2019 7:41	28.14	77.8	5.74	6.9	SR4	6/23/2019 13:41	28.29	74.3	5.48	7.3	SR4	6/23/2019 19:41	28.39	75.3	5.57	6.6
SR4	6/23/2019 1:46	28.68	80.7	5.79	5.7	SR4	6/23/2019 7:46	28.13	78.0	5.76	6.3	SR4	6/23/2019 13:46	28.31	74.5	5.49	5.5	SR4	6/23/2019 19:46	28.38	74.1	5.49	6.8
SR4	6/23/2019 1:51	28.78	80.0	5.72	6.6	SR4	6/23/2019 7:51	28.14	78.0	5.76	5.3	SR4	6/23/2019 13:51	28.33	75.2	5.55	6.4	SR4	6/23/2019 19:51	28.37	75.5	5.58	5.7
SR4	6/23/2019 1:56	28.74	82.2	5.88	5.5	SR4	6/23/2019 7:56	28.11	76.5	5.65	4.6	SR4	6/23/2019 13:56	28.34	75.1	5.53	6.1	SR4	6/23/2019 19:56	28.38	74.5	5.51	6.8
SR4	6/23/2019 2:01	28.69	82.6	5.92	5.4	SR4	6/23/2019 8:01	28.13	76.9	5.68	6.0	SR4	6/23/2019 14:01	28.35	75.1	5.54	7.4	SR4	6/23/2019 20:01	28.38	76.6	5.67	6.1
SR4	6/23/2019 2:06	28.73	82.6	5.92	6.1	SR4	6/23/2019 8:06	28.13	76.8	5.67	7.4	SR4	6/23/2019 14:06	28.37	75.6	5.58	5.0	SR4	6/23/2019 20:06	28.40	76.1	5.64	5.1
SR4	6/23/2019 2:11	28.70	82.1	5.88	6.8	SR4	6/23/2019 8:11	28.13	76.5	5.65	6.8	SR4	6/23/2019 14:11	28.39	76.9	5.67	6.7	SR4	6/23/2019 20:11	28.41	76.5	5.67	5.3
SR4	6/23/2019 2:16	28.87	85.5	6.10	3.6	SR4	6/23/2019 8:16	28.12	75.1	5.55	6.6	SR4	6/23/2019 14:16	28.43	76.8	5.65	7.0	SR4	6/23/2019 20:16	28.40	75.3	5.58	6.5
SR4	6/23/2019 2:21	28.91	86.5	6.16	5.3	SR4	6/23/2019 8:21	28.13	76.2	5.62	6.4	SR4	6/23/2019 14:21	28.45	77.2	5.68	4.4	SR4	6/23/2019 20:21	28.38	75.9	5.62	4.5
SR4	6/23/2019 2:26	28.89	87.3	6.22	4.1	SR4	6/23/2019 8:26	28.14	76.0	5.62	4.7	SR4	6/23/2019 14:26	28.45	78.5	5.79	6.5	SR4	6/23/2019 20:26	28.36	76.6	5.67	6.3
SR4	6/23/2019 2:31	28.87	82.3	5.87	5.5	SR4	6/23/2019 8:31	28.14	75.9	5.61	5.0	SR4	6/23/2019 14:31	28.44	78.0	5.76	5.1	SR4	6/23/2019 20:31	28.46	76.2	5.64	7.1
SR4	6/23/2019 2:36	28.88	84.5	6.03	4.4	SR4	6/23/2019 8:36	28.27	76.1	5.62	6.6	SR4	6/23/2019 14:36	28.30	76.7	5.66	6.4	SR4	6/23/2019 20:36	28.46	76.9	5.69	5.8
SR4	6/23/2019 2:41	28.95	88.8	6.34	5.7	SR4	6/23/2019 8:41	28.31	77.7	5.73	5.6	SR4	6/23/2019 14:41	28.43	77.2	5.69	4.5	SR4	6/23/2019 20:41	28.35	75.8	5.61	4.9
SR4	6/23/2019 2:46	28.87	87.3	6.23	5.7	SR4	6/23/2019 8:46	28.30	76.1	5.61	5.7	SR4	6/23/2019 14:46	28.42	76.8	5.65	3.6	SR4	6/23/2019 20:46	28.35	74.7	5.53	5.2
SR4	6/23/2019 2:51	28.82	86.0	6.15	5.8	SR4	6/23/2019 8:51	28.27	75.3	5.56	6.0	SR4	6/23/2019 14:51	28.38	76.2	5.62	6.0	SR4	6/23/2019 20:51	28.37	74.8	5.54	6.4
SR4	6/23/2019 2:56	28.67	83.2	5.96	7.5	SR4	6/23/2019 8:56	28.28	75.0	5.55	6.7	SR4	6/23/2019 14:56	28.35	77.0	5.68	7.5	SR4	6/23/2019 20:56	28.45	76.0	5.63	7.1
SR4	6/23/2019 3:01	28.63	80.5	5.78	6.7	SR4	6/23/2019 9:01	28.25	74.4	5.50	6.7	SR4	6/23/2019 15:01	28.32	75.7	5.58	7.2	SR4	6/23/2019 21:01	28.45	76.1	5.63	6.0
SR4	6/23/2019 3:06	28.74	83.3	5.96	4.9	SR4	6/23/2019 9:06	28.25	75.3	5.56	6.8	SR4	6/23/2019 15:06	28.31	75.2	5.55	6.3	SR4	6/23/2019 21:06	28.51	76.1	5.64	6.1
SR4	6/23/2019 3:11	28.81	84.5	6.04	4.4	SR4	6/23/2019 9:11	28.30	75.4	5.57	5.8	SR4	6/23/2019 15:11	28.37	77.5	5.71	7.3	SR4	6/23/2019 21:11	28.58	76.2	5.64	6.7
SR4	6/23/2019 3:16	28.66	80.7	5.78	5.3	SR4	6/23/2019 9:16	28.24	74.2	5.48	5.1	SR4	6/23/2019 15:16	28.38	76.6	5.65	5.8	SR4	6/23/2019 21:16	28.45	74.6	5.52	7.0
SR4	6/23/2019 3:21	28.69	80.3	5.75	6.0	SR4	6/23/2019 9:21	28.23	73.9	5.47	4.6	SR4	6/23/2019 15:21	28.36	77.8	5.73	6.3	SR4	6/23/2019 21:21	28.57	74.0	5.48	5.8
SR4	6/23/2019 3:26	28.77	84.0	6.01	4.5	SR4	6/23/2019 9:26	28.19	73.4	5.43	5.6	SR4	6/23/2019 15:26	28.27	75.0	5.54	5.7	SR4	6/23/2019 21:26	28.59	75.9	5.62	6.1
SR4	6/23/2019 3:31	28.79	85.1	6.09	7.4	SR4	6/23/2019 9:31	28.12	71.3	5.27	5.4	SR4	6/23/2019 15:31	28.40	77.4	5.70	7.7	SR4	6/23/2019 21:31	28.61	74.1	5.50	6.0
SR4	6/23/2019 3:36	28.65	80.4	5.76	5.5	SR4	6/23/2019 9:36	28.15	72.6	5.37	4.5	SR4	6/23/2019 15:36	28.40	77.7	5.72	6.1	SR4	6/23/2019 21:36	28.56	75.1	5.56	5.5
SR4	6/23/2019 3:41	28.63	79.5	5.69	4.7	SR4	6/23/2019 9:41	28.18	73.2	5.41	6.7	SR4	6/23/2019 15:41	28.43	79.1	5.82	6.3	SR4	6/23/2019 21:41	28.59	74.9	5.55	4.9
SR4	6/23/2019 3:46	28.77	85.8	6.13	3.7	SR4	6/23/2019 9:46	28.12	72.0	5.32	6.7	SR4	6/23/2019 15:46	28.19	74.7	5.51	5.3	SR4	6/23/2019 21:46	28.58	74.1	5.48	5.6
SR4	6/23/2019 3:51	28.72	82.4	5.90	5.3	SR4	6/23/2019 9:51	28.18	73.9	5.47	3.4	SR4	6/23/2019 15:51	28.40	77.2	5.68	7.5	SR4	6/23/2019 21:51	28.56	74.0	5.48	5.3
SR4	6/23/2019 3:56	28.81	85.9	6.14	7.2	SR4	6/23/2019 9:56	28															









24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	6/23/2019 0:17	0.16				SR12	6/23/2019 0:17	0.27			
SR4	6/23/2019 0:37	0.18				SR12	6/23/2019 0:37	0.26			
SR4	6/23/2019 0:57	0.16				SR12	6/23/2019 0:57	0.24			
SR4	6/23/2019 1:17	0.17				SR12	6/23/2019 1:17	0.26			
SR4	6/23/2019 1:37	0.18				SR12	6/23/2019 1:37	0.24			
SR4	6/23/2019 1:57	0.16				SR12	6/23/2019 1:57	0.24			
SR4	6/23/2019 2:17	0.18				SR12	6/23/2019 2:17	0.25			
SR4	6/23/2019 2:37	0.15				SR12	6/23/2019 2:37	0.27			
SR4	6/23/2019 2:57	0.18				SR12	6/23/2019 2:57	0.24			
SR4	6/23/2019 3:17	0.17				SR12	6/23/2019 3:17	0.25			
SR4	6/23/2019 3:37	0.15				SR12	6/23/2019 3:37	0.27			
SR4	6/23/2019 3:57	0.14				SR12	6/23/2019 3:57	0.25			
SR4	6/23/2019 4:17	0.15				SR12	6/23/2019 4:17	0.27			
SR4	6/23/2019 4:37	0.13				SR12	6/23/2019 4:37	0.26			
SR4	6/23/2019 4:57	0.13				SR12	6/23/2019 4:57	0.25			
SR4	6/23/2019 5:17	0.15				SR12	6/23/2019 5:17	0.24			
SR4	6/23/2019 5:37	0.15				SR12	6/23/2019 5:37	0.25			
SR4	6/23/2019 5:57	0.14				SR12	6/23/2019 5:57	0.27			
SR4						SR12					
SR4	6/23/2019 6:37	0.14				SR12	6/23/2019 6:37	0.27			
SR4	6/23/2019 6:57	0.13				SR12	6/23/2019 6:57	0.27			
SR4	6/23/2019 7:17	0.13				SR12	6/23/2019 7:17	0.27			
SR4	6/23/2019 7:37	0.14				SR12	6/23/2019 7:37	0.27			
SR4	6/23/2019 7:57	0.14				SR12	6/23/2019 7:57	0.24			
SR4	6/23/2019 8:17	0.16				SR12	6/23/2019 8:17	0.23			
SR4	6/23/2019 8:37	0.14				SR12	6/23/2019 8:37	0.21			
SR4	6/23/2019 8:57	0.14				SR12	6/23/2019 8:57	0.22			
SR4	6/23/2019 9:17	0.16				SR12	6/23/2019 9:17	0.23			
SR4	6/23/2019 9:37	0.13				SR12	6/23/2019 9:37	0.23			
SR4	6/23/2019 9:57	0.11				SR12	6/23/2019 9:57	0.24			
SR4	6/23/2019 10:17	0.14				SR12	6/23/2019 10:17	0.23			
SR4	6/23/2019 10:37	0.11				SR12	6/23/2019 10:37	0.21			
SR4	6/23/2019 10:57	0.14				SR12	6/23/2019 10:57	0.24			
SR4	6/23/2019 11:17	0.11				SR12	6/23/2019 11:17	0.23			
SR4	6/23/2019 11:37	0.11				SR12	6/23/2019 11:37	0.21			
SR4	6/23/2019 11:57	0.11				SR12	6/23/2019 11:57	0.21			
SR4	6/23/2019 12:17	0.14				SR12	6/23/2019 12:17	0.24			
SR4	6/23/2019 12:37	0.14				SR12	6/23/2019 12:37	0.24			
SR4	6/23/2019 12:57	0.13				SR12	6/23/2019 12:57	0.23			
SR4	6/23/2019 13:17	0.13				SR12	6/23/2019 13:17	0.21			
SR4	6/23/2019 13:37	0.13				SR12	6/23/2019 13:37	0.21			
SR4	6/23/2019 13:57	0.12				SR12	6/23/2019 13:57	0.24			
SR4	6/23/2019 14:17	0.11				SR12	6/23/2019 14:17	0.23			
SR4	6/23/2019 14:37	0.14				SR12	6/23/2019 14:37	0.24			
SR4	6/23/2019 14:57	0.12				SR12	6/23/2019 14:57	0.23			
SR4	6/23/2019 15:17	0.11				SR12	6/23/2019 15:17	0.22			
SR4	6/23/2019 15:37	0.14				SR12	6/23/2019 15:37	0.21			
SR4	6/23/2019 15:57	0.11				SR12	6/23/2019 15:57	0.20			
SR4	6/23/2019 16:17	0.13				SR12	6/23/2019 16:17	0.20			
SR4	6/23/2019 16:37	0.13				SR12	6/23/2019 16:37	0.20			
SR4	6/23/2019 16:57	0.12				SR12	6/23/2019 16:57	0.20			
SR4	6/23/2019 17:17	0.13				SR12	6/23/2019 17:17	0.20			
SR4	6/23/2019 17:37	0.13				SR12	6/23/2019 17:37	0.19			
SR4	6/23/2019 17:57	0.14				SR12	6/23/2019 17:57	0.20			
SR4	6/23/2019 18:17	0.11				SR12	6/23/2019 18:17	0.21			
SR4	6/23/2019 18:37	0.14				SR12	6/23/2019 18:37	0.20			
SR4	6/23/2019 18:57	0.13				SR12	6/23/2019 18:57	0.18			
SR4	6/23/2019 19:17	0.11				SR12	6/23/2019 19:17	0.19			
SR4	6/23/2019 19:37	0.09				SR12	6/23/2019 19:37	0.18			
SR4	6/23/2019 19:57	0.10				SR12	6/23/2019 19:57	0.19			
SR4	6/23/2019 20:17	0.12				SR12	6/23/2019 20:17	0.20			
SR4	6/23/2019 20:37	0.11				SR12	6/23/2019 20:37	0.19			
SR4	6/23/2019 20:57	0.09				SR12	6/23/2019 20:57	0.18			
SR4	6/23/2019 21:17	0.10				SR12	6/23/2019 21:17	0.20			
SR4	6/23/2019 21:37	0.09				SR12	6/23/2019 21:37	0.18			
SR4	6/23/2019 21:57	0.13				SR12	6/23/2019 21:57	0.18			
SR4	6/23/2019 22:17	0.10				SR12	6/23/2019 22:17	0.16			
SR4	6/23/2019 22:37	0.09				SR12	6/23/2019 22:37	0.18			
SR4	6/23/2019 22:57	0.11				SR12	6/23/2019 22:57	0.18			
SR4	6/23/2019 23:17	0.09				SR12	6/23/2019 23:17	0.18			
SR4	6/23/2019 23:37	0.09				SR12	6/23/2019 23:37	0.18			
SR4	6/23/2019 23:57	0.09				SR12	6/23/2019 23:57	0.15			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	6/24/2019 0:17	0.07				SR12	6/24/2019 0:17	0.17			
SR4	6/24/2019 0:37	0.08				SR12	6/24/2019 0:37	0.17			
SR4	6/24/2019 0:57	0.08				SR12	6/24/2019 0:57	0.18			
SR4	6/24/2019 1:17	0.07				SR12	6/24/2019 1:17	0.18			
SR4	6/24/2019 1:37	0.10				SR12	6/24/2019 1:37	0.18			
SR4	6/24/2019 1:57	0.08				SR12	6/24/2019 1:57	0.15			
SR4	6/24/2019 2:17	0.10				SR12	6/24/2019 2:17	0.13			
SR4	6/24/2019 2:37	0.07				SR12	6/24/2019 2:37	0.14			
SR4	6/24/2019 2:57	0.10				SR12	6/24/2019 2:57	0.15			
SR4	6/24/2019 3:17	0.10				SR12	6/24/2019 3:17	0.16			
SR4	6/24/2019 3:37	0.07				SR12	6/24/2019 3:37	0.14			
SR4	6/24/2019 3:57	0.11				SR12	6/24/2019 3:57	0.14			
SR4	6/24/2019 4:17	0.09				SR12	6/24/2019 4:17	0.13			
SR4	6/24/2019 4:37	0.11				SR12	6/24/2019 4:37	0.14			
SR4	6/24/2019 4:57	0.11				SR12	6/24/2019 4:57	0.13			
SR4	6/24/2019 5:17	0.11				SR12	6/24/2019 5:17	0.14			
SR4	6/24/2019 5:37	0.11				SR12	6/24/2019 5:37	0.16			
SR4	6/24/2019 5:57	0.10				SR12	6/24/2019 5:57	0.14			
SR4						SR12					
SR4	6/24/2019 6:37	0.12				SR12	6/24/2019 6:37	0.14			
SR4	6/24/2019 6:57	0.11				SR12	6/24/2019 6:57	0.13			
SR4	6/24/2019 7:17	0.13				SR12	6/24/2019 7:17	0.14			
SR4	6/24/2019 7:37	0.11				SR12	6/24/2019 7:37	0.16			
SR4	6/24/2019 7:57	0.10				SR12	6/24/2019 7:57	0.16			
SR4	6/24/2019 8:17	0.10				SR12	6/24/2019 8:17	0.14			
SR4	6/24/2019 8:37	0.12				SR12	6/24/2019 8:37	0.15			
SR4	6/24/2019 8:57	0.10				SR12	6/24/2019 8:57	0.16			
SR4	6/24/2019 9:17	0.10				SR12	6/24/2019 9:17	0.13			
SR4	6/24/2019 9:37	0.10				SR12	6/24/2019 9:37	0.16			
SR4	6/24/2019 9:57	0.12				SR12					
SR4	6/24/2019 10:17	0.13				SR12					
SR4	6/24/2019 10:37	0.13				SR12					
SR4	6/24/2019 10:57	0.11				SR12					
SR4	6/24/2019 11:17	0.13				SR12					
SR4	6/24/2019 11:37	0.13				SR12	6/24/2019 11:37	0.14			
SR4	6/24/2019 11:57	0.12				SR12	6/24/2019 11:57	0.13			
SR4						SR12	6/24/2019 12:17	0.13			
SR4						SR12	6/24/2019 12:37	0.16			
SR4						SR12	6/24/2019 12:57	0.16			
SR4						SR12	6/24/2019 13:17	0.16			
SR4						SR12	6/24/2019 13:37	0.15			
SR4	6/24/2019 13:57	0.13				SR12	6/24/2019 13:57	0.13			
SR4	6/24/2019 14:17	0.13				SR12	6/24/2019 14:17	0.16			
SR4	6/24/2019 14:37	0.13				SR12	6/24/2019 14:37	0.14			
SR4	6/24/2019 14:57	0.14				SR12	6/24/2019 14:57	0.16			
SR4	6/24/2019 15:17	0.13				SR12	6/24/2019 15:17	0.13			
SR4	6/24/2019 15:37	0.13				SR12	6/24/2019 15:37	0.14			
SR4	6/24/2019 15:57	0.12				SR12	6/24/2019 15:57	0.14			
SR4	6/24/2019 16:17	0.14				SR12	6/24/2019 16:17	0.13			
SR4	6/24/2019 16:37	0.12				SR12	6/24/2019 16:37	0.15			
SR4	6/24/2019 16:57	0.14				SR12	6/24/2019 16:57	0.14			
SR4	6/24/2019 17:17	0.12				SR12	6/24/2019 17:17	0.15			
SR4	6/24/2019 17:37	0.14				SR12	6/24/2019 17:37	0.16			
SR4	6/24/2019 17:57	0.14				SR12	6/24/2019 17:57	0.15			
SR4	6/24/2019 18:17	0.13				SR12	6/24/2019 18:17	0.13			
SR4	6/24/2019 18:37	0.14				SR12	6/24/2019 18:37	0.14			
SR4	6/24/2019 18:57	0.12				SR12	6/24/2019 18:57	0.14			
SR4	6/24/2019 19:17	0.13				SR12	6/24/2019 19:17	0.13			
SR4	6/24/2019 19:37	0.13				SR12	6/24/2019 19:37	0.14			
SR4	6/24/2019 19:57	0.12				SR12	6/24/2019 19:57	0.13			
SR4	6/24/2019 20:17	0.14				SR12	6/24/2019 20:17	0.13			
SR4	6/24/2019 20:37	0.14				SR12	6/24/2019 20:37	0.13			
SR4	6/24/2019 20:57	0.13				SR12	6/24/2019 20:57	0.15			
SR4	6/24/2019 21:17	0.14				SR12	6/24/2019 21:17	0.13			
SR4	6/24/2019 21:37	0.14				SR12	6/24/2019 21:37	0.13			
SR4	6/24/2019 21:57	0.14				SR12	6/24/2019 21:57	0.14			
SR4	6/24/2019 22:17	0.12				SR12	6/24/2019 22:17	0.15			
SR4	6/24/2019 22:37	0.13				SR12	6/24/2019 22:37	0.14			
SR4	6/24/2019 22:57	0.13				SR12	6/24/2019 22:57	0.15			
SR4	6/24/2019 23:17	0.11				SR12	6/24/2019 23:17	0.15			
SR4	6/24/2019 23:37	0.12				SR12	6/24/2019 23:37	0.16			
SR4	6/24/2019 23:57	0.12				SR12	6/24/2019 23:57	0.13			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
Automatic Instrument calibration of NH<sub>3</sub>-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
SR4 monitoring station was under maintenance during 12:11-13:21.  
SR12 monitoring station was under maintenance during 9:51-11:11.  
SR13 monitoring station was under maintenance during 15:15-15:35.









24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	6/25/2019 0:17	0.12				SR12	6/25/2019 0:17	0.15			
SR4	6/25/2019 0:37	0.12				SR12	6/25/2019 0:37	0.13			
SR4	6/25/2019 0:57	0.13				SR12	6/25/2019 0:57	0.13			
SR4	6/25/2019 1:17	0.12				SR12	6/25/2019 1:17	0.15			
SR4	6/25/2019 1:37	0.13				SR12	6/25/2019 1:37	0.14			
SR4	6/25/2019 1:57	0.12				SR12	6/25/2019 1:57	0.13			
SR4	6/25/2019 2:17	0.12				SR12	6/25/2019 2:17	0.14			
SR4	6/25/2019 2:37	0.12				SR12	6/25/2019 2:37	0.14			
SR4	6/25/2019 2:57	0.12				SR12	6/25/2019 2:57	0.14			
SR4	6/25/2019 3:17	0.11				SR12	6/25/2019 3:17	0.14			
SR4	6/25/2019 3:37	0.13				SR12	6/25/2019 3:37	0.14			
SR4	6/25/2019 3:57	0.11				SR12	6/25/2019 3:57	0.13			
SR4	6/25/2019 4:17	0.13				SR12	6/25/2019 4:17	0.12			
SR4	6/25/2019 4:37	0.11				SR12	6/25/2019 4:37	0.12			
SR4	6/25/2019 4:57	0.12				SR12	6/25/2019 4:57	0.14			
SR4	6/25/2019 5:17	0.12				SR12	6/25/2019 5:17	0.14			
SR4	6/25/2019 5:37	0.10				SR12	6/25/2019 5:37	0.13			
SR4	6/25/2019 5:57	0.11				SR12	6/25/2019 5:57	0.14			
SR4						SR12					
SR4	6/25/2019 6:37	0.11				SR12	6/25/2019 6:37	0.12			
SR4	6/25/2019 6:57	0.12				SR12	6/25/2019 6:57	0.12			
SR4	6/25/2019 7:17	0.11				SR12	6/25/2019 7:17	0.12			
SR4	6/25/2019 7:37	0.10				SR12	6/25/2019 7:37	0.14			
SR4	6/25/2019 7:57	0.09				SR12	6/25/2019 7:57	0.14			
SR4	6/25/2019 8:17	0.10				SR12	6/25/2019 8:17	0.13			
SR4	6/25/2019 8:37	0.09				SR12	6/25/2019 8:37	0.14			
SR4	6/25/2019 8:57	0.09				SR12	6/25/2019 8:57	0.13			
SR4	6/25/2019 9:17	0.09				SR12	6/25/2019 9:17	0.12			
SR4	6/25/2019 9:37	0.12				SR12	6/25/2019 9:37	0.12			
SR4	6/25/2019 9:57	0.09				SR12	6/25/2019 9:57	0.13			
SR4	6/25/2019 10:17	0.11				SR12	6/25/2019 10:17	0.14			
SR4	6/25/2019 10:37	0.11				SR12	6/25/2019 10:37	0.12			
SR4	6/25/2019 10:57	0.09				SR12	6/25/2019 10:57	0.14			
SR4	6/25/2019 11:17	0.09				SR12	6/25/2019 11:17	0.14			
SR4	6/25/2019 11:37	0.09				SR12	6/25/2019 11:37	0.12			
SR4	6/25/2019 11:57	0.11				SR12	6/25/2019 11:57	0.13			
SR4	6/25/2019 12:17	0.11				SR12	6/25/2019 12:17	0.13			
SR4	6/25/2019 12:37	0.13				SR12	6/25/2019 12:37	0.12			
SR4	6/25/2019 12:57	0.11				SR12	6/25/2019 12:57	0.13			
SR4	6/25/2019 13:17	0.11				SR12	6/25/2019 13:17	0.12			
SR4	6/25/2019 13:37	0.12				SR12	6/25/2019 13:37	0.13			
SR4	6/25/2019 13:57	0.11				SR12	6/25/2019 13:57	0.14			
SR4	6/25/2019 14:17	0.12				SR12	6/25/2019 14:17	0.13			
SR4	6/25/2019 14:37	0.13				SR12	6/25/2019 14:37	0.13			
SR4	6/25/2019 14:57	0.10				SR12	6/25/2019 14:57	0.14			
SR4	6/25/2019 15:17	0.10				SR12	6/25/2019 15:17	0.12			
SR4	6/25/2019 15:37	0.12				SR12	6/25/2019 15:37	0.13			
SR4	6/25/2019 15:57	0.10				SR12	6/25/2019 15:57	0.13			
SR4	6/25/2019 16:17	0.12				SR12	6/25/2019 16:17	0.13			
SR4	6/25/2019 16:37	0.13				SR12	6/25/2019 16:37	0.13			
SR4	6/25/2019 16:57	0.12				SR12	6/25/2019 16:57	0.12			
SR4	6/25/2019 17:17	0.12				SR12	6/25/2019 17:17	0.13			
SR4	6/25/2019 17:37	0.10				SR12	6/25/2019 17:37	0.13			
SR4	6/25/2019 17:57	0.12				SR12	6/25/2019 17:57	0.15			
SR4	6/25/2019 18:17	0.13				SR12	6/25/2019 18:17	0.13			
SR4	6/25/2019 18:37	0.12				SR12	6/25/2019 18:37	0.15			
SR4	6/25/2019 18:57	0.13				SR12	6/25/2019 18:57	0.13			
SR4	6/25/2019 19:17	0.13				SR12	6/25/2019 19:17	0.15			
SR4	6/25/2019 19:37	0.14				SR12	6/25/2019 19:37	0.13			
SR4	6/25/2019 19:57	0.12				SR12	6/25/2019 19:57	0.15			
SR4	6/25/2019 20:17	0.15				SR12	6/25/2019 20:17	0.15			
SR4	6/25/2019 20:37	0.12				SR12	6/25/2019 20:37	0.15			
SR4	6/25/2019 20:57	0.13				SR12	6/25/2019 20:57	0.14			
SR4	6/25/2019 21:17	0.14				SR12	6/25/2019 21:17	0.15			
SR4	6/25/2019 21:37	0.15				SR12	6/25/2019 21:37	0.15			
SR4	6/25/2019 21:57	0.12				SR12	6/25/2019 21:57	0.13			
SR4	6/25/2019 22:17	0.13				SR12	6/25/2019 22:17	0.13			
SR4	6/25/2019 22:37	0.13				SR12	6/25/2019 22:37	0.15			
SR4	6/25/2019 22:57	0.13				SR12	6/25/2019 22:57	0.15			
SR4	6/25/2019 23:17	0.12				SR12	6/25/2019 23:17	0.13			
SR4	6/25/2019 23:37	0.14				SR12	6/25/2019 23:37	0.13			
SR4	6/25/2019 23:57	0.13				SR12	6/25/2019 23:57	0.14			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
 SR5 monitoring station was under maintenance during 13:20-13:40.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	6/26/2019 0:17	0.15				SR12	6/26/2019 0:17	0.14			
SR4	6/26/2019 0:37	0.14				SR12	6/26/2019 0:37	0.14			
SR4	6/26/2019 0:57	0.14				SR12	6/26/2019 0:57	0.15			
SR4	6/26/2019 1:17	0.13				SR12	6/26/2019 1:17	0.14			
SR4	6/26/2019 1:37	0.15				SR12	6/26/2019 1:37	0.13			
SR4	6/26/2019 1:57	0.15				SR12	6/26/2019 1:57	0.15			
SR4	6/26/2019 2:17	0.15				SR12	6/26/2019 2:17	0.15			
SR4	6/26/2019 2:37	0.13				SR12	6/26/2019 2:37	0.16			
SR4	6/26/2019 2:57	0.12				SR12	6/26/2019 2:57	0.16			
SR4	6/26/2019 3:17	0.15				SR12	6/26/2019 3:17	0.15			
SR4	6/26/2019 3:37	0.12				SR12	6/26/2019 3:37	0.16			
SR4	6/26/2019 3:57	0.10				SR12	6/26/2019 3:57	0.16			
SR4	6/26/2019 4:17	0.10				SR12	6/26/2019 4:17	0.14			
SR4	6/26/2019 4:37	0.10				SR12	6/26/2019 4:37	0.16			
SR4	6/26/2019 4:57	0.11				SR12	6/26/2019 4:57	0.16			
SR4	6/26/2019 5:17	0.11				SR12	6/26/2019 5:17	0.16			
SR4	6/26/2019 5:37	0.10				SR12	6/26/2019 5:37	0.16			
SR4	6/26/2019 5:57	0.12				SR12	6/26/2019 5:57	0.15			
SR4						SR12					
SR4	6/26/2019 6:37	0.12				SR12	6/26/2019 6:37	0.16			
SR4	6/26/2019 6:57	0.12				SR12	6/26/2019 6:57	0.14			
SR4	6/26/2019 7:17	0.13				SR12	6/26/2019 7:17	0.16			
SR4	6/26/2019 7:37	0.11				SR12	6/26/2019 7:37	0.14			
SR4	6/26/2019 7:57	0.12				SR12	6/26/2019 7:57	0.15			
SR4	6/26/2019 8:17	0.10				SR12	6/26/2019 8:17	0.15			
SR4	6/26/2019 8:37	0.13				SR12	6/26/2019 8:37	0.15			
SR4	6/26/2019 8:57	0.13				SR12	6/26/2019 8:57	0.16			
SR4	6/26/2019 9:17	0.13				SR12	6/26/2019 9:17	0.16			
SR4	6/26/2019 9:37	0.12				SR12	6/26/2019 9:37	0.16			
SR4	6/26/2019 9:57	0.13				SR12	6/26/2019 9:57	0.16			
SR4	6/26/2019 10:17	0.12				SR12	6/26/2019 10:17	0.14			
SR4	6/26/2019 10:37	0.13				SR12	6/26/2019 10:37	0.15			
SR4	6/26/2019 10:57	0.10				SR12	6/26/2019 10:57	0.14			
SR4	6/26/2019 11:17	0.10				SR12	6/26/2019 11:17	0.15			
SR4	6/26/2019 11:37	0.12				SR12	6/26/2019 11:37	0.14			
SR4	6/26/2019 11:57	0.10				SR12	6/26/2019 11:57	0.16			
SR4	6/26/2019 12:17	0.10				SR12	6/26/2019 12:17	0.18			
SR4	6/26/2019 12:37	0.10				SR12	6/26/2019 12:37	0.15			
SR4	6/26/2019 12:57	0.12				SR12	6/26/2019 12:57	0.17			
SR4	6/26/2019 13:17	0.09				SR12	6/26/2019 13:17	0.16			
SR4	6/26/2019 13:37	0.10				SR12	6/26/2019 13:37	0.18			
SR4	6/26/2019 13:57	0.11				SR12	6/26/2019 13:57	0.18			
SR4	6/26/2019 14:17	0.12				SR12	6/26/2019 14:17	0.16			
SR4	6/26/2019 14:37	0.10				SR12	6/26/2019 14:37	0.16			
SR4	6/26/2019 14:57	0.12				SR12	6/26/2019 14:57	0.15			
SR4	6/26/2019 15:17	0.12				SR12	6/26/2019 15:17	0.16			
SR4	6/26/2019 15:37	0.11				SR12	6/26/2019 15:37	0.18			
SR4	6/26/2019 15:57	0.11				SR12	6/26/2019 15:57	0.18			
SR4	6/26/2019 16:17	0.12				SR12	6/26/2019 16:17	0.18			
SR4	6/26/2019 16:37	0.09				SR12	6/26/2019 16:37	0.15			
SR4	6/26/2019 16:57	0.09				SR12	6/26/2019 16:57	0.15			
SR4	6/26/2019 17:17	0.12				SR12	6/26/2019 17:17	0.18			
SR4	6/26/2019 17:37	0.12				SR12	6/26/2019 17:37	0.16			
SR4	6/26/2019 17:57	0.11				SR12	6/26/2019 17:57	0.17			
SR4	6/26/2019 18:17	0.11				SR12	6/26/2019 18:17	0.15			
SR4	6/26/2019 18:37	0.11				SR12	6/26/2019 18:37	0.18			
SR4	6/26/2019 18:57	0.10				SR12	6/26/2019 18:57	0.16			
SR4	6/26/2019 19:17	0.11				SR12	6/26/2019 19:17	0.17			
SR4	6/26/2019 19:37	0.12				SR12	6/26/2019 19:37	0.18			
SR4	6/26/2019 19:57	0.10				SR12	6/26/2019 19:57	0.16			
SR4	6/26/2019 20:17	0.10				SR12	6/26/2019 20:17	0.14			
SR4	6/26/2019 20:37	0.11				SR12	6/26/2019 20:37	0.13			
SR4	6/26/2019 20:57	0.12				SR12	6/26/2019 20:57	0.14			
SR4	6/26/2019 21:17	0.10				SR12	6/26/2019 21:17	0.14			
SR4	6/26/2019 21:37	0.11				SR12	6/26/2019 21:37	0.16			
SR4	6/26/2019 21:57	0.09				SR12	6/26/2019 21:57	0.14			
SR4	6/26/2019 22:17	0.10				SR12	6/26/2019 22:17	0.14			
SR4	6/26/2019 22:37	0.11				SR12	6/26/2019 22:37	0.15			
SR4	6/26/2019 22:57	0.09				SR12	6/26/2019 22:57	0.15			
SR4	6/26/2019 23:17	0.11				SR12	6/26/2019 23:17	0.14			
SR4	6/26/2019 23:37	0.12				SR12	6/26/2019 23:37	0.13			
SR4	6/26/2019 23:57	0.09				SR12	6/26/2019 23:57	0.15			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.









24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	6/27/2019 0:17	0.10				SR12	6/27/2019 0:17	0.14			
SR4	6/27/2019 0:37	0.11				SR12	6/27/2019 0:37	0.13			
SR4	6/27/2019 0:57	0.10				SR12	6/27/2019 0:57	0.13			
SR4	6/27/2019 1:17	0.12				SR12	6/27/2019 1:17	0.16			
SR4	6/27/2019 1:37	0.11				SR12	6/27/2019 1:37	0.16			
SR4	6/27/2019 1:57	0.09				SR12	6/27/2019 1:57	0.16			
SR4	6/27/2019 2:17	0.09				SR12	6/27/2019 2:17	0.16			
SR4	6/27/2019 2:37	0.11				SR12	6/27/2019 2:37	0.13			
SR4	6/27/2019 2:57	0.09				SR12	6/27/2019 2:57	0.15			
SR4	6/27/2019 3:17	0.10				SR12	6/27/2019 3:17	0.15			
SR4	6/27/2019 3:37	0.10				SR12	6/27/2019 3:37	0.15			
SR4	6/27/2019 3:57	0.09				SR12	6/27/2019 3:57	0.16			
SR4	6/27/2019 4:17	0.09				SR12	6/27/2019 4:17	0.15			
SR4	6/27/2019 4:37	0.12				SR12	6/27/2019 4:37	0.15			
SR4	6/27/2019 4:57	0.11				SR12	6/27/2019 4:57	0.16			
SR4	6/27/2019 5:17	0.12				SR12	6/27/2019 5:17	0.16			
SR4	6/27/2019 5:37	0.12				SR12	6/27/2019 5:37	0.15			
SR4	6/27/2019 5:57	0.14				SR12	6/27/2019 5:57	0.14			
SR4						SR12					
SR4	6/27/2019 6:37	0.14				SR12	6/27/2019 6:37	0.15			
SR4	6/27/2019 6:57	0.13				SR12	6/27/2019 6:57	0.16			
SR4	6/27/2019 7:17	0.12				SR12	6/27/2019 7:17	0.16			
SR4	6/27/2019 7:37	0.12				SR12	6/27/2019 7:37	0.15			
SR4	6/27/2019 7:57	0.14				SR12	6/27/2019 7:57	0.14			
SR4	6/27/2019 8:17	0.12				SR12	6/27/2019 8:17	0.14			
SR4	6/27/2019 8:37	0.11				SR12	6/27/2019 8:37	0.15			
SR4	6/27/2019 8:57	0.14				SR12	6/27/2019 8:57	0.16			
SR4	6/27/2019 9:17	0.13				SR12	6/27/2019 9:17	0.15			
SR4	6/27/2019 9:37	0.12				SR12	6/27/2019 9:37	0.15			
SR4	6/27/2019 9:57	0.13				SR12	6/27/2019 9:57	0.16			
SR4	6/27/2019 10:17	0.13				SR12	6/27/2019 10:17	0.15			
SR4	6/27/2019 10:37	0.11				SR12	6/27/2019 10:37	0.17			
SR4	6/27/2019 10:57	0.13				SR12	6/27/2019 10:57	0.16			
SR4	6/27/2019 11:17	0.14				SR12	6/27/2019 11:17	0.17			
SR4	6/27/2019 11:37	0.13				SR12	6/27/2019 11:37	0.16			
SR4	6/27/2019 11:57	0.11				SR12	6/27/2019 11:57	0.15			
SR4	6/27/2019 12:17	0.14				SR12	6/27/2019 12:17	0.16			
SR4	6/27/2019 12:37	0.14				SR12	6/27/2019 12:37	0.17			
SR4	6/27/2019 12:57	0.14				SR12	6/27/2019 12:57	0.16			
SR4	6/27/2019 13:17	0.14				SR12	6/27/2019 13:17	0.17			
SR4	6/27/2019 13:37	0.13				SR12	6/27/2019 13:37	0.17			
SR4	6/27/2019 13:57	0.12				SR12	6/27/2019 13:57	0.17			
SR4	6/27/2019 14:17	0.14				SR12	6/27/2019 14:17	0.15			
SR4	6/27/2019 14:37	0.14				SR12	6/27/2019 14:37	0.17			
SR4	6/27/2019 14:57	0.12				SR12	6/27/2019 14:57	0.15			
SR4	6/27/2019 15:17	0.14				SR12	6/27/2019 15:17	0.16			
SR4	6/27/2019 15:37	0.13				SR12	6/27/2019 15:37	0.16			
SR4	6/27/2019 15:57	0.11				SR12	6/27/2019 15:57	0.17			
SR4	6/27/2019 16:17	0.12				SR12	6/27/2019 16:17	0.16			
SR4	6/27/2019 16:37	0.11				SR12	6/27/2019 16:37	0.18			
SR4	6/27/2019 16:57	0.14				SR12	6/27/2019 16:57	0.18			
SR4	6/27/2019 17:17	0.11				SR12	6/27/2019 17:17	0.16			
SR4	6/27/2019 17:37	0.13				SR12	6/27/2019 17:37	0.18			
SR4	6/27/2019 17:57	0.15				SR12	6/27/2019 17:57	0.18			
SR4	6/27/2019 18:17	0.12				SR12	6/27/2019 18:17	0.17			
SR4	6/27/2019 18:37	0.12				SR12	6/27/2019 18:37	0.17			
SR4	6/27/2019 18:57	0.15				SR12	6/27/2019 18:57	0.16			
SR4	6/27/2019 19:17	0.12				SR12	6/27/2019 19:17	0.17			
SR4	6/27/2019 19:37	0.12				SR12	6/27/2019 19:37	0.16			
SR4	6/27/2019 19:57	0.14				SR12	6/27/2019 19:57	0.16			
SR4	6/27/2019 20:17	0.14				SR12	6/27/2019 20:17	0.16			
SR4	6/27/2019 20:37	0.14				SR12	6/27/2019 20:37	0.17			
SR4	6/27/2019 20:57	0.12				SR12	6/27/2019 20:57	0.18			
SR4	6/27/2019 21:17	0.13				SR12	6/27/2019 21:17	0.17			
SR4	6/27/2019 21:37	0.14				SR12	6/27/2019 21:37	0.16			
SR4	6/27/2019 21:57	0.14				SR12	6/27/2019 21:57	0.18			
SR4	6/27/2019 22:17	0.13				SR12	6/27/2019 22:17	0.18			
SR4	6/27/2019 22:37	0.12				SR12	6/27/2019 22:37	0.18			
SR4	6/27/2019 22:57	0.15				SR12	6/27/2019 22:57	0.16			
SR4	6/27/2019 23:17	0.13				SR12	6/27/2019 23:17	0.17			
SR4	6/27/2019 23:37	0.15				SR12	6/27/2019 23:37	0.18			
SR4	6/27/2019 23:57	0.15				SR12	6/27/2019 23:57	0.18			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
 SR5 monitoring station was under maintenance during 11:30-11:50.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	6/28/2019 0:17	0.15				SR12	6/28/2019 0:17	0.16			
SR4	6/28/2019 0:37	0.12				SR12	6/28/2019 0:37	0.18			
SR4	6/28/2019 0:57	0.12				SR12	6/28/2019 0:57	0.16			
SR4	6/28/2019 1:17	0.13				SR12	6/28/2019 1:17	0.18			
SR4	6/28/2019 1:37	0.12				SR12	6/28/2019 1:37	0.17			
SR4	6/28/2019 1:57	0.15				SR12	6/28/2019 1:57	0.20			
SR4	6/28/2019 2:17	0.17				SR12	6/28/2019 2:17	0.19			
SR4	6/28/2019 2:37	0.17				SR12	6/28/2019 2:37	0.17			
SR4	6/28/2019 2:57	0.15				SR12	6/28/2019 2:57	0.17			
SR4	6/28/2019 3:17	0.14				SR12	6/28/2019 3:17	0.17			
SR4	6/28/2019 3:37	0.16				SR12	6/28/2019 3:37	0.20			
SR4	6/28/2019 3:57	0.16				SR12	6/28/2019 3:57	0.19			
SR4	6/28/2019 4:17	0.18				SR12	6/28/2019 4:17	0.20			
SR4	6/28/2019 4:37	0.17				SR12	6/28/2019 4:37	0.20			
SR4	6/28/2019 4:57	0.17				SR12	6/28/2019 4:57	0.19			
SR4	6/28/2019 5:17	0.14				SR12	6/28/2019 5:17	0.18			
SR4	6/28/2019 5:37	0.17				SR12	6/28/2019 5:37	0.17			
SR4	6/28/2019 5:57	0.15				SR12	6/28/2019 5:57	0.19			
SR4						SR12					
SR4	6/28/2019 6:37	0.15				SR12	6/28/2019 6:37	0.17			
SR4	6/28/2019 6:57	0.17				SR12	6/28/2019 6:57	0.19			
SR4	6/28/2019 7:17	0.15				SR12	6/28/2019 7:17	0.20			
SR4	6/28/2019 7:37	0.17				SR12	6/28/2019 7:37	0.20			
SR4	6/28/2019 7:57	0.17				SR12	6/28/2019 7:57	0.19			
SR4	6/28/2019 8:17	0.17				SR12	6/28/2019 8:17	0.19			
SR4	6/28/2019 8:37	0.18				SR12	6/28/2019 8:37	0.21			
SR4	6/28/2019 8:57	0.18				SR12	6/28/2019 8:57	0.20			
SR4	6/28/2019 9:17	0.20				SR12	6/28/2019 9:17	0.21			
SR4	6/28/2019 9:37	0.17				SR12	6/28/2019 9:37	0.20			
SR4	6/28/2019 9:57	0.20				SR12	6/28/2019 9:57	0.19			
SR4	6/28/2019 10:17	0.17				SR12					
SR4	6/28/2019 10:37	0.19				SR12					
SR4	6/28/2019 10:57	0.17				SR12					
SR4	6/28/2019 11:17	0.18				SR12					
SR4	6/28/2019 11:37	0.17				SR12					
SR4	6/28/2019 11:57	0.19				SR12	6/28/2019 11:57	0.21			
SR4						SR12	6/28/2019 12:17	0.19			
SR4						SR12	6/28/2019 12:37	0.21			
SR4						SR12	6/28/2019 12:57	0.19			
SR4						SR12	6/28/2019 13:17	0.21			
SR4						SR12	6/28/2019 13:37	0.21			
SR4	6/28/2019 13:57	0.18				SR12	6/28/2019 13:57	0.21			
SR4	6/28/2019 14:17	0.20				SR12	6/28/2019 14:17	0.19			
SR4	6/28/2019 14:37	0.20				SR12	6/28/2019 14:37	0.20			
SR4	6/28/2019 14:57	0.19				SR12	6/28/2019 14:57	0.19			
SR4	6/28/2019 15:17	0.18				SR12	6/28/2019 15:17	0.19			
SR4	6/28/2019 15:37	0.18				SR12	6/28/2019 15:37	0.19			
SR4	6/28/2019 15:57	0.18				SR12	6/28/2019 15:57	0.21			
SR4	6/28/2019 16:17	0.17				SR12	6/28/2019 16:17	0.21			
SR4	6/28/2019 16:37	0.19				SR12	6/28/2019 16:37	0.20			
SR4	6/28/2019 16:57	0.17				SR12	6/28/2019 16:57	0.21			
SR4	6/28/2019 17:17	0.17				SR12	6/28/2019 17:17	0.21			
SR4	6/28/2019 17:37	0.18				SR12	6/28/2019 17:37	0.20			
SR4	6/28/2019 17:57	0.20				SR12	6/28/2019 17:57	0.20			
SR4	6/28/2019 18:17	0.21				SR12	6/28/2019 18:17	0.19			
SR4	6/28/2019 18:37	0.19				SR12	6/28/2019 18:37	0.21			
SR4	6/28/2019 18:57	0.21				SR12	6/28/2019 18:57	0.19			
SR4	6/28/2019 19:17	0.18				SR12	6/28/2019 19:17	0.19			
SR4	6/28/2019 19:37	0.20				SR12	6/28/2019 19:37	0.21			
SR4	6/28/2019 19:57	0.20				SR12	6/28/2019 19:57	0.21			
SR4	6/28/2019 20:17	0.18				SR12	6/28/2019 20:17	0.19			
SR4	6/28/2019 20:37	0.19				SR12	6/28/2019 20:37	0.20			
SR4	6/28/2019 20:57	0.20				SR12	6/28/2019 20:57	0.22			
SR4	6/28/2019 21:17	0.19				SR12	6/28/2019 21:17	0.20			
SR4	6/28/2019 21:37	0.21				SR12	6/28/2019 21:37	0.20			
SR4	6/28/2019 21:57	0.19				SR12	6/28/2019 21:57	0.23			
SR4	6/28/2019 22:17	0.18				SR12	6/28/2019 22:17	0.20			
SR4	6/28/2019 22:37	0.21				SR12	6/28/2019 22:37	0.20			
SR4	6/28/2019 22:57	0.20				SR12	6/28/2019 22:57	0.23			
SR4	6/28/2019 23:17	0.21				SR12	6/28/2019 23:17	0.22			
SR4	6/28/2019 23:37	0.21				SR12	6/28/2019 23:37	0.21			
SR4	6/28/2019 23:57	0.22				SR12	6/28/2019 23:57	0.21			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
Automatic Instrument calibration of NH<sub>3</sub>-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
SR4 monitoring station was under maintenance during 12:16-13:36.  
SR12 monitoring station was under maintenance during 10:11-11:21.  
SR13 monitoring station was under maintenance during 15:50-16:15.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	6/29/2019 0:17	0.23				SR12	6/29/2019 0:17	0.22			
SR4	6/29/2019 0:37	0.22				SR12	6/29/2019 0:37	0.22			
SR4	6/29/2019 0:57	0.24				SR12	6/29/2019 0:57	0.21			
SR4	6/29/2019 1:17	0.24				SR12	6/29/2019 1:17	0.22			
SR4	6/29/2019 1:37	0.21				SR12	6/29/2019 1:37	0.22			
SR4	6/29/2019 1:57	0.21				SR12	6/29/2019 1:57	0.22			
SR4	6/29/2019 2:17	0.23				SR12	6/29/2019 2:17	0.21			
SR4	6/29/2019 2:37	0.23				SR12	6/29/2019 2:37	0.22			
SR4	6/29/2019 2:57	0.21				SR12	6/29/2019 2:57	0.23			
SR4	6/29/2019 3:17	0.23				SR12	6/29/2019 3:17	0.24			
SR4	6/29/2019 3:37	0.22				SR12	6/29/2019 3:37	0.23			
SR4	6/29/2019 3:57	0.23				SR12	6/29/2019 3:57	0.22			
SR4	6/29/2019 4:17	0.22				SR12	6/29/2019 4:17	0.23			
SR4	6/29/2019 4:37	0.26				SR12	6/29/2019 4:37	0.23			
SR4	6/29/2019 4:57	0.25				SR12	6/29/2019 4:57	0.23			
SR4	6/29/2019 5:17	0.26				SR12	6/29/2019 5:17	0.23			
SR4	6/29/2019 5:37	0.23				SR12	6/29/2019 5:37	0.22			
SR4	6/29/2019 5:57	0.26				SR12	6/29/2019 5:57	0.23			
SR4						SR12					
SR4	6/29/2019 6:37	0.24				SR12	6/29/2019 6:37	0.24			
SR4	6/29/2019 6:57	0.26				SR12	6/29/2019 6:57	0.24			
SR4	6/29/2019 7:17	0.24				SR12	6/29/2019 7:17	0.23			
SR4	6/29/2019 7:37	0.23				SR12	6/29/2019 7:37	0.22			
SR4	6/29/2019 7:57	0.24				SR12	6/29/2019 7:57	0.22			
SR4	6/29/2019 8:17	0.26				SR12	6/29/2019 8:17	0.24			
SR4	6/29/2019 8:37	0.26				SR12	6/29/2019 8:37	0.22			
SR4	6/29/2019 8:57	0.26				SR12	6/29/2019 8:57	0.22			
SR4	6/29/2019 9:17	0.28				SR12	6/29/2019 9:17	0.22			
SR4	6/29/2019 9:37	0.28				SR12	6/29/2019 9:37	0.23			
SR4	6/29/2019 9:57	0.29				SR12	6/29/2019 9:57	0.23			
SR4	6/29/2019 10:17	0.27				SR12	6/29/2019 10:17	0.24			
SR4	6/29/2019 10:37	0.28				SR12	6/29/2019 10:37	0.22			
SR4	6/29/2019 10:57	0.28				SR12	6/29/2019 10:57	0.23			
SR4	6/29/2019 11:17	0.27				SR12	6/29/2019 11:17	0.23			
SR4	6/29/2019 11:37	0.29				SR12	6/29/2019 11:37	0.22			
SR4	6/29/2019 11:57	0.33				SR12	6/29/2019 11:57	0.24			
SR4	6/29/2019 12:17	0.32				SR12	6/29/2019 12:17	0.24			
SR4	6/29/2019 12:37	0.33				SR12	6/29/2019 12:37	0.22			
SR4	6/29/2019 12:57	0.33				SR12	6/29/2019 12:57	0.24			
SR4	6/29/2019 13:17	0.32				SR12	6/29/2019 13:17	0.24			
SR4	6/29/2019 13:37	0.31				SR12	6/29/2019 13:37	0.24			
SR4	6/29/2019 13:57	0.32				SR12	6/29/2019 13:57	0.23			
SR4	6/29/2019 14:17	0.33				SR12	6/29/2019 14:17	0.22			
SR4	6/29/2019 14:37	0.35				SR12	6/29/2019 14:37	0.24			
SR4	6/29/2019 14:57	0.34				SR12	6/29/2019 14:57	0.22			
SR4	6/29/2019 15:17	0.34				SR12	6/29/2019 15:17	0.22			
SR4	6/29/2019 15:37	0.34				SR12	6/29/2019 15:37	0.22			
SR4	6/29/2019 15:57	0.35				SR12	6/29/2019 15:57	0.24			
SR4	6/29/2019 16:17	0.34				SR12	6/29/2019 16:17	0.22			
SR4	6/29/2019 16:37	0.36				SR12	6/29/2019 16:37	0.23			
SR4	6/29/2019 16:57	0.34				SR12	6/29/2019 16:57	0.21			
SR4	6/29/2019 17:17	0.33				SR12	6/29/2019 17:17	0.23			
SR4	6/29/2019 17:37	0.34				SR12	6/29/2019 17:37	0.22			
SR4	6/29/2019 17:57	0.31				SR12	6/29/2019 17:57	0.21			
SR4	6/29/2019 18:17	0.31				SR12	6/29/2019 18:17	0.22			
SR4	6/29/2019 18:37	0.33				SR12	6/29/2019 18:37	0.21			
SR4	6/29/2019 18:57	0.30				SR12	6/29/2019 18:57	0.21			
SR4	6/29/2019 19:17	0.31				SR12	6/29/2019 19:17	0.23			
SR4	6/29/2019 19:37	0.34				SR12	6/29/2019 19:37	0.21			
SR4	6/29/2019 19:57	0.31				SR12	6/29/2019 19:57	0.23			
SR4	6/29/2019 20:17	0.30				SR12	6/29/2019 20:17	0.21			
SR4	6/29/2019 20:37	0.33				SR12	6/29/2019 20:37	0.21			
SR4	6/29/2019 20:57	0.34				SR12	6/29/2019 20:57	0.22			
SR4	6/29/2019 21:17	0.32				SR12	6/29/2019 21:17	0.23			
SR4	6/29/2019 21:37	0.33				SR12	6/29/2019 21:37	0.21			
SR4	6/29/2019 21:57	0.32				SR12	6/29/2019 21:57	0.23			
SR4	6/29/2019 22:17	0.31				SR12	6/29/2019 22:17	0.23			
SR4	6/29/2019 22:37	0.29				SR12	6/29/2019 22:37	0.21			
SR4	6/29/2019 22:57	0.30				SR12	6/29/2019 22:57	0.23			
SR4	6/29/2019 23:17	0.29				SR12	6/29/2019 23:17	0.23			
SR4	6/29/2019 23:37	0.29				SR12	6/29/2019 23:37	0.21			
SR4	6/29/2019 23:57	0.29				SR12	6/29/2019 23:57	0.19			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.









24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	6/30/2019 0:17	0.27				SR12	6/30/2019 0:17	0.20			
SR4	6/30/2019 0:37	0.28				SR12	6/30/2019 0:37	0.19			
SR4	6/30/2019 0:57	0.27				SR12	6/30/2019 0:57	0.19			
SR4	6/30/2019 1:17	0.29				SR12	6/30/2019 1:17	0.19			
SR4	6/30/2019 1:37	0.29				SR12	6/30/2019 1:37	0.20			
SR4	6/30/2019 1:57	0.28				SR12	6/30/2019 1:57	0.19			
SR4	6/30/2019 2:17	0.26				SR12	6/30/2019 2:17	0.20			
SR4	6/30/2019 2:37	0.27				SR12	6/30/2019 2:37	0.19			
SR4	6/30/2019 2:57	0.26				SR12	6/30/2019 2:57	0.19			
SR4	6/30/2019 3:17	0.28				SR12	6/30/2019 3:17	0.19			
SR4	6/30/2019 3:37	0.28				SR12	6/30/2019 3:37	0.19			
SR4	6/30/2019 3:57	0.28				SR12	6/30/2019 3:57	0.19			
SR4	6/30/2019 4:17	0.26				SR12	6/30/2019 4:17	0.20			
SR4	6/30/2019 4:37	0.28				SR12	6/30/2019 4:37	0.21			
SR4	6/30/2019 4:57	0.27				SR12	6/30/2019 4:57	0.21			
SR4	6/30/2019 5:17	0.27				SR12	6/30/2019 5:17	0.19			
SR4	6/30/2019 5:37	0.26				SR12	6/30/2019 5:37	0.19			
SR4	6/30/2019 5:57	0.28				SR12	6/30/2019 5:57	0.16			
SR4						SR12					
SR4	6/30/2019 6:37	0.26				SR12	6/30/2019 6:37	0.16			
SR4	6/30/2019 6:57	0.26				SR12	6/30/2019 6:57	0.19			
SR4	6/30/2019 7:17	0.25				SR12	6/30/2019 7:17	0.17			
SR4	6/30/2019 7:37	0.22				SR12	6/30/2019 7:37	0.16			
SR4	6/30/2019 7:57	0.25				SR12	6/30/2019 7:57	0.16			
SR4	6/30/2019 8:17	0.22				SR12	6/30/2019 8:17	0.19			
SR4	6/30/2019 8:37	0.22				SR12	6/30/2019 8:37	0.18			
SR4	6/30/2019 8:57	0.25				SR12	6/30/2019 8:57	0.18			
SR4	6/30/2019 9:17	0.24				SR12	6/30/2019 9:17	0.19			
SR4	6/30/2019 9:37	0.22				SR12	6/30/2019 9:37	0.19			
SR4	6/30/2019 9:57	0.22				SR12	6/30/2019 9:57	0.18			
SR4	6/30/2019 10:17	0.25				SR12	6/30/2019 10:17	0.19			
SR4	6/30/2019 10:37	0.25				SR12	6/30/2019 10:37	0.16			
SR4	6/30/2019 10:57	0.22				SR12	6/30/2019 10:57	0.16			
SR4	6/30/2019 11:17	0.23				SR12	6/30/2019 11:17	0.17			
SR4	6/30/2019 11:37	0.22				SR12	6/30/2019 11:37	0.18			
SR4	6/30/2019 11:57	0.25				SR12	6/30/2019 11:57	0.19			
SR4	6/30/2019 12:17	0.23				SR12	6/30/2019 12:17	0.18			
SR4	6/30/2019 12:37	0.24				SR12	6/30/2019 12:37	0.17			
SR4	6/30/2019 12:57	0.25				SR12	6/30/2019 12:57	0.18			
SR4	6/30/2019 13:17	0.25				SR12	6/30/2019 13:17	0.18			
SR4	6/30/2019 13:37	0.24				SR12	6/30/2019 13:37	0.16			
SR4	6/30/2019 13:57	0.22				SR12	6/30/2019 13:57	0.16			
SR4	6/30/2019 14:17	0.21				SR12	6/30/2019 14:17	0.15			
SR4	6/30/2019 14:37	0.21				SR12	6/30/2019 14:37	0.16			
SR4	6/30/2019 14:57	0.22				SR12	6/30/2019 14:57	0.16			
SR4	6/30/2019 15:17	0.21				SR12	6/30/2019 15:17	0.15			
SR4	6/30/2019 15:37	0.22				SR12	6/30/2019 15:37	0.17			
SR4	6/30/2019 15:57	0.20				SR12	6/30/2019 15:57	0.17			
SR4	6/30/2019 16:17	0.23				SR12	6/30/2019 16:17	0.15			
SR4	6/30/2019 16:37	0.20				SR12	6/30/2019 16:37	0.17			
SR4	6/30/2019 16:57	0.22				SR12	6/30/2019 16:57	0.17			
SR4	6/30/2019 17:17	0.22				SR12	6/30/2019 17:17	0.15			
SR4	6/30/2019 17:37	0.20				SR12	6/30/2019 17:37	0.15			
SR4	6/30/2019 17:57	0.23				SR12	6/30/2019 17:57	0.15			
SR4	6/30/2019 18:17	0.22				SR12	6/30/2019 18:17	0.16			
SR4	6/30/2019 18:37	0.20				SR12	6/30/2019 18:37	0.13			
SR4	6/30/2019 18:57	0.20				SR12	6/30/2019 18:57	0.15			
SR4	6/30/2019 19:17	0.21				SR12	6/30/2019 19:17	0.14			
SR4	6/30/2019 19:37	0.23				SR12	6/30/2019 19:37	0.14			
SR4	6/30/2019 19:57	0.20				SR12	6/30/2019 19:57	0.14			
SR4	6/30/2019 20:17	0.21				SR12	6/30/2019 20:17	0.15			
SR4	6/30/2019 20:37	0.23				SR12	6/30/2019 20:37	0.14			
SR4	6/30/2019 20:57	0.24				SR12	6/30/2019 20:57	0.14			
SR4	6/30/2019 21:17	0.22				SR12	6/30/2019 21:17	0.15			
SR4	6/30/2019 21:37	0.23				SR12	6/30/2019 21:37	0.13			
SR4	6/30/2019 21:57	0.23				SR12	6/30/2019 21:57	0.13			
SR4	6/30/2019 22:17	0.22				SR12	6/30/2019 22:17	0.15			
SR4	6/30/2019 22:37	0.22				SR12	6/30/2019 22:37	0.13			
SR4	6/30/2019 22:57	0.23				SR12	6/30/2019 22:57	0.13			
SR4	6/30/2019 23:17	0.22				SR12	6/30/2019 23:17	0.13			
SR4	6/30/2019 23:37	0.22				SR12	6/30/2019 23:37	0.13			
SR4	6/30/2019 23:57	0.21				SR12	6/30/2019 23:57	0.15			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/1/2019 0:17	0.23				SR12	7/1/2019 0:17	0.15			
SR4	7/1/2019 0:37	0.24				SR12	7/1/2019 0:37	0.13			
SR4	7/1/2019 0:57	0.21				SR12	7/1/2019 0:57	0.14			
SR4	7/1/2019 1:17	0.24				SR12	7/1/2019 1:17	0.14			
SR4	7/1/2019 1:37	0.22				SR12	7/1/2019 1:37	0.13			
SR4	7/1/2019 1:57	0.23				SR12	7/1/2019 1:57	0.13			
SR4	7/1/2019 2:17	0.22				SR12	7/1/2019 2:17	0.14			
SR4	7/1/2019 2:37	0.19				SR12	7/1/2019 2:37	0.14			
SR4	7/1/2019 2:57	0.21				SR12	7/1/2019 2:57	0.12			
SR4	7/1/2019 3:17	0.21				SR12	7/1/2019 3:17	0.13			
SR4	7/1/2019 3:37	0.20				SR12	7/1/2019 3:37	0.13			
SR4	7/1/2019 3:57	0.19				SR12	7/1/2019 3:57	0.14			
SR4	7/1/2019 4:17	0.22				SR12	7/1/2019 4:17	0.14			
SR4	7/1/2019 4:37	0.20				SR12	7/1/2019 4:37	0.12			
SR4	7/1/2019 4:57	0.20				SR12	7/1/2019 4:57	0.11			
SR4	7/1/2019 5:17	0.21				SR12	7/1/2019 5:17	0.12			
SR4	7/1/2019 5:37	0.22				SR12	7/1/2019 5:37	0.13			
SR4	7/1/2019 5:57	0.20				SR12	7/1/2019 5:57	0.13			
SR4						SR12					
SR4	7/1/2019 6:37	0.20				SR12	7/1/2019 6:37	0.13			
SR4	7/1/2019 6:57	0.20				SR12	7/1/2019 6:57	0.11			
SR4	7/1/2019 7:17	0.20				SR12	7/1/2019 7:17	0.12			
SR4	7/1/2019 7:37	0.21				SR12	7/1/2019 7:37	0.12			
SR4	7/1/2019 7:57	0.19				SR12	7/1/2019 7:57	0.11			
SR4	7/1/2019 8:17	0.22				SR12	7/1/2019 8:17	0.12			
SR4	7/1/2019 8:37	0.19				SR12	7/1/2019 8:37	0.12			
SR4	7/1/2019 8:57	0.22				SR12	7/1/2019 8:57	0.11			
SR4	7/1/2019 9:17	0.22				SR12	7/1/2019 9:17	0.13			
SR4	7/1/2019 9:37	0.20				SR12	7/1/2019 9:37	0.13			
SR4	7/1/2019 9:57	0.19				SR12	7/1/2019 9:57	0.13			
SR4	7/1/2019 10:17	0.19				SR12	7/1/2019 10:17	0.13			
SR4	7/1/2019 10:37	0.20				SR12	7/1/2019 10:37	0.14			
SR4	7/1/2019 10:57	0.18				SR12	7/1/2019 10:57	0.14			
SR4	7/1/2019 11:17	0.19				SR12	7/1/2019 11:17	0.12			
SR4	7/1/2019 11:37	0.18				SR12	7/1/2019 11:37	0.13			
SR4	7/1/2019 11:57	0.19				SR12	7/1/2019 11:57	0.14			
SR4	7/1/2019 12:17	0.20				SR12	7/1/2019 12:17	0.14			
SR4	7/1/2019 12:37	0.20				SR12	7/1/2019 12:37	0.13			
SR4	7/1/2019 12:57	0.18				SR12	7/1/2019 12:57	0.14			
SR4	7/1/2019 13:17	0.20				SR12	7/1/2019 13:17	0.14			
SR4	7/1/2019 13:37	0.20				SR12	7/1/2019 13:37	0.13			
SR4	7/1/2019 13:57	0.18				SR12	7/1/2019 13:57	0.12			
SR4	7/1/2019 14:17	0.20				SR12	7/1/2019 14:17	0.12			
SR4	7/1/2019 14:37	0.19				SR12	7/1/2019 14:37	0.12			
SR4	7/1/2019 14:57	0.20				SR12	7/1/2019 14:57	0.14			
SR4	7/1/2019 15:17	0.20				SR12	7/1/2019 15:17	0.12			
SR4	7/1/2019 15:37	0.18				SR12	7/1/2019 15:37	0.13			
SR4	7/1/2019 15:57	0.17				SR12	7/1/2019 15:57	0.14			
SR4	7/1/2019 16:17	0.16				SR12	7/1/2019 16:17	0.15			
SR4	7/1/2019 16:37	0.16				SR12	7/1/2019 16:37	0.16			
SR4	7/1/2019 16:57	0.16				SR12	7/1/2019 16:57	0.14			
SR4	7/1/2019 17:17	0.17				SR12	7/1/2019 17:17	0.15			
SR4	7/1/2019 17:37	0.18				SR12	7/1/2019 17:37	0.14			
SR4	7/1/2019 17:57	0.17				SR12	7/1/2019 17:57	0.14			
SR4	7/1/2019 18:17	0.18				SR12	7/1/2019 18:17	0.16			
SR4	7/1/2019 18:37	0.18				SR12	7/1/2019 18:37	0.16			
SR4	7/1/2019 18:57	0.18				SR12	7/1/2019 18:57	0.16			
SR4	7/1/2019 19:17	0.18				SR12	7/1/2019 19:17	0.14			
SR4	7/1/2019 19:37	0.18				SR12	7/1/2019 19:37	0.15			
SR4	7/1/2019 19:57	0.18				SR12	7/1/2019 19:57	0.15			
SR4	7/1/2019 20:17	0.16				SR12	7/1/2019 20:17	0.15			
SR4	7/1/2019 20:37	0.16				SR12	7/1/2019 20:37	0.15			
SR4	7/1/2019 20:57	0.18				SR12	7/1/2019 20:57	0.16			
SR4	7/1/2019 21:17	0.16				SR12	7/1/2019 21:17	0.17			
SR4	7/1/2019 21:37	0.16				SR12	7/1/2019 21:37	0.17			
SR4	7/1/2019 21:57	0.18				SR12	7/1/2019 21:57	0.17			
SR4	7/1/2019 22:17	0.17				SR12	7/1/2019 22:17	0.16			
SR4	7/1/2019 22:37	0.18				SR12	7/1/2019 22:37	0.18			
SR4	7/1/2019 22:57	0.16				SR12	7/1/2019 22:57	0.17			
SR4	7/1/2019 23:17	0.17				SR12	7/1/2019 23:17	0.16			
SR4	7/1/2019 23:37	0.15				SR12	7/1/2019 23:37	0.18			
SR4	7/1/2019 23:57	0.17				SR12	7/1/2019 23:57	0.17			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/2/2019 0:17	0.17				SR12	7/2/2019 0:17	0.18			
SR4	7/2/2019 0:37	0.15				SR12	7/2/2019 0:37	0.18			
SR4	7/2/2019 0:57	0.16				SR12	7/2/2019 0:57	0.18			
SR4	7/2/2019 1:17	0.15				SR12	7/2/2019 1:17	0.17			
SR4	7/2/2019 1:37	0.17				SR12	7/2/2019 1:37	0.18			
SR4	7/2/2019 1:57	0.15				SR12	7/2/2019 1:57	0.19			
SR4	7/2/2019 2:17	0.15				SR12	7/2/2019 2:17	0.20			
SR4	7/2/2019 2:37	0.17				SR12	7/2/2019 2:37	0.19			
SR4	7/2/2019 2:57	0.16				SR12	7/2/2019 2:57	0.18			
SR4	7/2/2019 3:17	0.16				SR12	7/2/2019 3:17	0.18			
SR4	7/2/2019 3:37	0.17				SR12	7/2/2019 3:37	0.19			
SR4	7/2/2019 3:57	0.16				SR12	7/2/2019 3:57	0.18			
SR4	7/2/2019 4:17	0.15				SR12	7/2/2019 4:17	0.19			
SR4	7/2/2019 4:37	0.15				SR12	7/2/2019 4:37	0.20			
SR4	7/2/2019 4:57	0.16				SR12	7/2/2019 4:57	0.19			
SR4	7/2/2019 5:17	0.16				SR12	7/2/2019 5:17	0.19			
SR4	7/2/2019 5:37	0.16				SR12	7/2/2019 5:37	0.20			
SR4	7/2/2019 5:57	0.16				SR12	7/2/2019 5:57	0.18			
SR4						SR12					
SR4	7/2/2019 6:37	0.17				SR12	7/2/2019 6:37	0.19			
SR4	7/2/2019 6:57	0.16				SR12	7/2/2019 6:57	0.19			
SR4	7/2/2019 7:17	0.16				SR12	7/2/2019 7:17	0.18			
SR4	7/2/2019 7:37	0.18				SR12	7/2/2019 7:37	0.17			
SR4	7/2/2019 7:57	0.17				SR12	7/2/2019 7:57	0.16			
SR4	7/2/2019 8:17	0.16				SR12	7/2/2019 8:17	0.16			
SR4	7/2/2019 8:37	0.17				SR12	7/2/2019 8:37	0.15			
SR4	7/2/2019 8:57	0.18				SR12	7/2/2019 8:57	0.15			
SR4	7/2/2019 9:17	0.18				SR12	7/2/2019 9:17	0.16			
SR4	7/2/2019 9:37	0.18				SR12	7/2/2019 9:37	0.17			
SR4	7/2/2019 9:57	0.16				SR12	7/2/2019 9:57	0.16			
SR4	7/2/2019 10:17	0.16				SR12	7/2/2019 10:17	0.15			
SR4	7/2/2019 10:37	0.18				SR12	7/2/2019 10:37	0.15			
SR4	7/2/2019 10:57	0.16				SR12	7/2/2019 10:57	0.16			
SR4	7/2/2019 11:17	0.18				SR12	7/2/2019 11:17	0.16			
SR4	7/2/2019 11:37	0.17				SR12	7/2/2019 11:37	0.15			
SR4	7/2/2019 11:57	0.17				SR12	7/2/2019 11:57	0.15			
SR4	7/2/2019 12:17	0.17				SR12	7/2/2019 12:17	0.17			
SR4	7/2/2019 12:37	0.17				SR12	7/2/2019 12:37	0.17			
SR4	7/2/2019 12:57	0.16				SR12	7/2/2019 12:57	0.16			
SR4	7/2/2019 13:17	0.16				SR12	7/2/2019 13:17	0.17			
SR4	7/2/2019 13:37	0.17				SR12	7/2/2019 13:37	0.17			
SR4	7/2/2019 13:57	0.17				SR12	7/2/2019 13:57	0.17			
SR4	7/2/2019 14:17	0.16				SR12	7/2/2019 14:17	0.16			
SR4	7/2/2019 14:37	0.16				SR12	7/2/2019 14:37	0.17			
SR4	7/2/2019 14:57	0.18				SR12	7/2/2019 14:57	0.15			
SR4	7/2/2019 15:17	0.16				SR12	7/2/2019 15:17	0.17			
SR4	7/2/2019 15:37	0.17				SR12	7/2/2019 15:37	0.16			
SR4	7/2/2019 15:57	0.17				SR12	7/2/2019 15:57	0.17			
SR4	7/2/2019 16:17	0.18				SR12	7/2/2019 16:17	0.17			
SR4	7/2/2019 16:37	0.17				SR12	7/2/2019 16:37	0.15			
SR4	7/2/2019 16:57	0.18				SR12	7/2/2019 16:57	0.17			
SR4	7/2/2019 17:17	0.19				SR12	7/2/2019 17:17	0.17			
SR4	7/2/2019 17:37	0.17				SR12	7/2/2019 17:37	0.17			
SR4	7/2/2019 17:57	0.18				SR12	7/2/2019 17:57	0.20			
SR4	7/2/2019 18:17	0.18				SR12	7/2/2019 18:17	0.20			
SR4	7/2/2019 18:37	0.19				SR12	7/2/2019 18:37	0.20			
SR4	7/2/2019 18:57	0.19				SR12	7/2/2019 18:57	0.19			
SR4	7/2/2019 19:17	0.17				SR12	7/2/2019 19:17	0.17			
SR4	7/2/2019 19:37	0.17				SR12	7/2/2019 19:37	0.20			
SR4	7/2/2019 19:57	0.17				SR12	7/2/2019 19:57	0.18			
SR4	7/2/2019 20:17	0.17				SR12	7/2/2019 20:17	0.18			
SR4	7/2/2019 20:37	0.18				SR12	7/2/2019 20:37	0.20			
SR4	7/2/2019 20:57	0.18				SR12	7/2/2019 20:57	0.18			
SR4	7/2/2019 21:17	0.17				SR12	7/2/2019 21:17	0.18			
SR4	7/2/2019 21:37	0.17				SR12	7/2/2019 21:37	0.20			
SR4	7/2/2019 21:57	0.19				SR12	7/2/2019 21:57	0.20			
SR4	7/2/2019 22:17	0.17				SR12	7/2/2019 22:17	0.18			
SR4	7/2/2019 22:37	0.19				SR12	7/2/2019 22:37	0.18			
SR4	7/2/2019 22:57	0.19				SR12	7/2/2019 22:57	0.19			
SR4	7/2/2019 23:17	0.19				SR12	7/2/2019 23:17	0.18			
SR4	7/2/2019 23:37	0.17				SR12	7/2/2019 23:37	0.19			
SR4	7/2/2019 23:57	0.18				SR12	7/2/2019 23:57	0.20			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
 SR5 monitoring station was under maintenance during 13:00-13:25.









24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/3/2019 0:17	0.20				SR12	7/3/2019 0:17	0.20			
SR4	7/3/2019 0:37	0.21				SR12	7/3/2019 0:37	0.21			
SR4	7/3/2019 0:57	0.20				SR12	7/3/2019 0:57	0.20			
SR4	7/3/2019 1:17	0.22				SR12	7/3/2019 1:17	0.22			
SR4	7/3/2019 1:37	0.22				SR12	7/3/2019 1:37	0.22			
SR4	7/3/2019 1:57	0.20				SR12	7/3/2019 1:57	0.20			
SR4	7/3/2019 2:17	0.20				SR12	7/3/2019 2:17	0.20			
SR4	7/3/2019 2:37	0.20				SR12	7/3/2019 2:37	0.20			
SR4	7/3/2019 2:57	0.20				SR12	7/3/2019 2:57	0.20			
SR4	7/3/2019 3:17	0.20				SR12	7/3/2019 3:17	0.20			
SR4	7/3/2019 3:37	0.20				SR12	7/3/2019 3:37	0.20			
SR4	7/3/2019 3:57	0.21				SR12	7/3/2019 3:57	0.21			
SR4	7/3/2019 4:17	0.22				SR12	7/3/2019 4:17	0.22			
SR4	7/3/2019 4:37	0.21				SR12	7/3/2019 4:37	0.21			
SR4	7/3/2019 4:57	0.22				SR12	7/3/2019 4:57	0.22			
SR4	7/3/2019 5:17	0.21				SR12	7/3/2019 5:17	0.21			
SR4	7/3/2019 5:37	0.21				SR12	7/3/2019 5:37	0.21			
SR4	7/3/2019 5:57	0.22				SR12	7/3/2019 5:57	0.22			
SR4						SR12					
SR4	7/3/2019 6:37	0.22				SR12	7/3/2019 6:37	0.22			
SR4	7/3/2019 6:57	0.20				SR12	7/3/2019 6:57	0.20			
SR4	7/3/2019 7:17	0.22				SR12	7/3/2019 7:17	0.22			
SR4	7/3/2019 7:37	0.20				SR12	7/3/2019 7:37	0.20			
SR4	7/3/2019 7:57	0.22				SR12	7/3/2019 7:57	0.22			
SR4	7/3/2019 8:17	0.21				SR12	7/3/2019 8:17	0.21			
SR4	7/3/2019 8:37	0.22				SR12	7/3/2019 8:37	0.22			
SR4	7/3/2019 8:57	0.21				SR12	7/3/2019 8:57	0.21			
SR4	7/3/2019 9:17	0.21				SR12	7/3/2019 9:17	0.21			
SR4	7/3/2019 9:37	0.23				SR12	7/3/2019 9:37	0.23			
SR4	7/3/2019 9:57	0.22				SR12	7/3/2019 9:57	0.22			
SR4	7/3/2019 10:17	0.22				SR12					
SR4	7/3/2019 10:37	0.24				SR12					
SR4	7/3/2019 10:57	0.24				SR12					
SR4	7/3/2019 11:17	0.24				SR12					
SR4	7/3/2019 11:37	0.23				SR12	7/3/2019 11:37	0.23			
SR4	7/3/2019 11:57	0.24				SR12	7/3/2019 11:57	0.24			
SR4						SR12	7/3/2019 12:17	0.24			
SR4						SR12	7/3/2019 12:37	0.23			
SR4						SR12	7/3/2019 12:57	0.23			
SR4						SR12	7/3/2019 13:17	0.24			
SR4						SR12	7/3/2019 13:37	0.24			
SR4	7/3/2019 13:57	0.22				SR12	7/3/2019 13:57	0.22			
SR4	7/3/2019 14:17	0.23				SR12	7/3/2019 14:17	0.23			
SR4	7/3/2019 14:37	0.24				SR12	7/3/2019 14:37	0.24			
SR4	7/3/2019 14:57	0.23				SR12	7/3/2019 14:57	0.23			
SR4	7/3/2019 15:17	0.22				SR12	7/3/2019 15:17	0.22			
SR4	7/3/2019 15:37	0.23				SR12	7/3/2019 15:37	0.23			
SR4	7/3/2019 15:57	0.22				SR12	7/3/2019 15:57	0.22			
SR4	7/3/2019 16:17	0.22				SR12	7/3/2019 16:17	0.22			
SR4	7/3/2019 16:37	0.25				SR12	7/3/2019 16:37	0.25			
SR4	7/3/2019 16:57	0.26				SR12	7/3/2019 16:57	0.26			
SR4	7/3/2019 17:17	0.25				SR12	7/3/2019 17:17	0.25			
SR4	7/3/2019 17:37	0.24				SR12	7/3/2019 17:37	0.24			
SR4	7/3/2019 17:57	0.24				SR12	7/3/2019 17:57	0.24			
SR4	7/3/2019 18:17	0.23				SR12	7/3/2019 18:17	0.23			
SR4	7/3/2019 18:37	0.23				SR12	7/3/2019 18:37	0.23			
SR4	7/3/2019 18:57	0.25				SR12	7/3/2019 18:57	0.25			
SR4	7/3/2019 19:17	0.23				SR12	7/3/2019 19:17	0.23			
SR4	7/3/2019 19:37	0.24				SR12	7/3/2019 19:37	0.24			
SR4	7/3/2019 19:57	0.23				SR12	7/3/2019 19:57	0.23			
SR4	7/3/2019 20:17	0.23				SR12	7/3/2019 20:17	0.23			
SR4	7/3/2019 20:37	0.24				SR12	7/3/2019 20:37	0.24			
SR4	7/3/2019 20:57	0.26				SR12	7/3/2019 20:57	0.26			
SR4	7/3/2019 21:17	0.25				SR12	7/3/2019 21:17	0.25			
SR4	7/3/2019 21:37	0.26				SR12	7/3/2019 21:37	0.26			
SR4	7/3/2019 21:57	0.23				SR12	7/3/2019 21:57	0.23			
SR4	7/3/2019 22:17	0.24				SR12	7/3/2019 22:17	0.24			
SR4	7/3/2019 22:37	0.26				SR12	7/3/2019 22:37	0.26			
SR4	7/3/2019 22:57	0.23				SR12	7/3/2019 22:57	0.23			
SR4	7/3/2019 23:17	0.26				SR12	7/3/2019 23:17	0.26			
SR4	7/3/2019 23:37	0.27				SR12	7/3/2019 23:37	0.27			
SR4	7/3/2019 23:57	0.27				SR12	7/3/2019 23:57	0.27			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH<sub>3</sub>-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
 SR4 monitoring station was under maintenance during 12:16-13:21.  
 SR12 monitoring station was under maintenance during 10:01-11:11.  
 SR13 monitoring station was under maintenance during 15:10-15:35.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/4/2019 0:17	0.23				SR12	7/4/2019 0:17	0.25			
SR4	7/4/2019 0:37	0.22				SR12	7/4/2019 0:37	0.28			
SR4	7/4/2019 0:57	0.24				SR12	7/4/2019 0:57	0.28			
SR4	7/4/2019 1:17	0.22				SR12	7/4/2019 1:17	0.28			
SR4	7/4/2019 1:37	0.23				SR12	7/4/2019 1:37	0.27			
SR4	7/4/2019 1:57	0.24				SR12	7/4/2019 1:57	0.25			
SR4	7/4/2019 2:17	0.24				SR12	7/4/2019 2:17	0.28			
SR4	7/4/2019 2:37	0.24				SR12	7/4/2019 2:37	0.25			
SR4	7/4/2019 2:57	0.26				SR12	7/4/2019 2:57	0.25			
SR4	7/4/2019 3:17	0.26				SR12	7/4/2019 3:17	0.27			
SR4	7/4/2019 3:37	0.25				SR12	7/4/2019 3:37	0.27			
SR4	7/4/2019 3:57	0.26				SR12	7/4/2019 3:57	0.25			
SR4	7/4/2019 4:17	0.24				SR12	7/4/2019 4:17	0.28			
SR4	7/4/2019 4:37	0.25				SR12	7/4/2019 4:37	0.27			
SR4	7/4/2019 4:57	0.24				SR12	7/4/2019 4:57	0.28			
SR4	7/4/2019 5:17	0.25				SR12	7/4/2019 5:17	0.27			
SR4	7/4/2019 5:37	0.26				SR12	7/4/2019 5:37	0.26			
SR4	7/4/2019 5:57	0.25				SR12	7/4/2019 5:57	0.28			
SR4						SR12					
SR4	7/4/2019 6:37	0.25				SR12	7/4/2019 6:37	0.27			
SR4	7/4/2019 6:57	0.25				SR12	7/4/2019 6:57	0.25			
SR4	7/4/2019 7:17	0.25				SR12	7/4/2019 7:17	0.27			
SR4	7/4/2019 7:37	0.26				SR12	7/4/2019 7:37	0.27			
SR4	7/4/2019 7:57	0.26				SR12	7/4/2019 7:57	0.27			
SR4	7/4/2019 8:17	0.26				SR12	7/4/2019 8:17	0.26			
SR4	7/4/2019 8:37	0.27				SR12	7/4/2019 8:37	0.25			
SR4	7/4/2019 8:57	0.26				SR12	7/4/2019 8:57	0.24			
SR4	7/4/2019 9:17	0.26				SR12	7/4/2019 9:17	0.24			
SR4	7/4/2019 9:37	0.27				SR12	7/4/2019 9:37	0.27			
SR4	7/4/2019 9:57	0.26				SR12	7/4/2019 9:57	0.24			
SR4	7/4/2019 10:17	0.27				SR12	7/4/2019 10:17	0.24			
SR4	7/4/2019 10:37	0.26				SR12	7/4/2019 10:37	0.26			
SR4	7/4/2019 10:57	0.25				SR12	7/4/2019 10:57	0.24			
SR4	7/4/2019 11:17	0.27				SR12	7/4/2019 11:17	0.25			
SR4	7/4/2019 11:37	0.27				SR12	7/4/2019 11:37	0.26			
SR4	7/4/2019 11:57	0.26				SR12	7/4/2019 11:57	0.25			
SR4	7/4/2019 12:17	0.27				SR12	7/4/2019 12:17	0.25			
SR4	7/4/2019 12:37	0.27				SR12	7/4/2019 12:37	0.25			
SR4	7/4/2019 12:57	0.27				SR12	7/4/2019 12:57	0.27			
SR4	7/4/2019 13:17	0.27				SR12	7/4/2019 13:17	0.26			
SR4	7/4/2019 13:37	0.27				SR12	7/4/2019 13:37	0.27			
SR4	7/4/2019 13:57	0.26				SR12	7/4/2019 13:57	0.27			
SR4	7/4/2019 14:17	0.26				SR12	7/4/2019 14:17	0.25			
SR4	7/4/2019 14:37	0.26				SR12	7/4/2019 14:37	0.26			
SR4	7/4/2019 14:57	0.26				SR12	7/4/2019 14:57	0.25			
SR4	7/4/2019 15:17	0.23				SR12	7/4/2019 15:17	0.26			
SR4	7/4/2019 15:37	0.23				SR12	7/4/2019 15:37	0.25			
SR4	7/4/2019 15:57	0.25				SR12	7/4/2019 15:57	0.28			
SR4	7/4/2019 16:17	0.23				SR12	7/4/2019 16:17	0.28			
SR4	7/4/2019 16:37	0.23				SR12	7/4/2019 16:37	0.27			
SR4	7/4/2019 16:57	0.25				SR12	7/4/2019 16:57	0.28			
SR4	7/4/2019 17:17	0.26				SR12	7/4/2019 17:17	0.25			
SR4	7/4/2019 17:37	0.23				SR12	7/4/2019 17:37	0.25			
SR4	7/4/2019 17:57	0.26				SR12	7/4/2019 17:57	0.28			
SR4	7/4/2019 18:17	0.24				SR12	7/4/2019 18:17	0.27			
SR4	7/4/2019 18:37	0.25				SR12	7/4/2019 18:37	0.27			
SR4	7/4/2019 18:57	0.25				SR12	7/4/2019 18:57	0.30			
SR4	7/4/2019 19:17	0.26				SR12	7/4/2019 19:17	0.27			
SR4	7/4/2019 19:37	0.24				SR12	7/4/2019 19:37	0.29			
SR4	7/4/2019 19:57	0.24				SR12	7/4/2019 19:57	0.27			
SR4	7/4/2019 20:17	0.24				SR12	7/4/2019 20:17	0.27			
SR4	7/4/2019 20:37	0.23				SR12	7/4/2019 20:37	0.27			
SR4	7/4/2019 20:57	0.21				SR12	7/4/2019 20:57	0.30			
SR4	7/4/2019 21:17	0.21				SR12	7/4/2019 21:17	0.27			
SR4	7/4/2019 21:37	0.23				SR12	7/4/2019 21:37	0.30			
SR4	7/4/2019 21:57	0.23				SR12	7/4/2019 21:57	0.30			
SR4	7/4/2019 22:17	0.23				SR12	7/4/2019 22:17	0.28			
SR4	7/4/2019 22:37	0.23				SR12	7/4/2019 22:37	0.27			
SR4	7/4/2019 22:57	0.23				SR12	7/4/2019 22:57	0.28			
SR4	7/4/2019 23:17	0.21				SR12	7/4/2019 23:17	0.27			
SR4	7/4/2019 23:37	0.21				SR12	7/4/2019 23:37	0.30			
SR4	7/4/2019 23:57	0.21				SR12	7/4/2019 23:57	0.30			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
 SR5 monitoring station was under maintenance during 10:25-10:50.









24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/5/2019 0:17	0.23				SR12	7/5/2019 0:17	0.28			
SR4	7/5/2019 0:37	0.22				SR12	7/5/2019 0:37	0.28			
SR4	7/5/2019 0:57	0.22				SR12	7/5/2019 0:57	0.29			
SR4	7/5/2019 1:17	0.23				SR12	7/5/2019 1:17	0.29			
SR4	7/5/2019 1:37	0.23				SR12	7/5/2019 1:37	0.30			
SR4	7/5/2019 1:57	0.22				SR12	7/5/2019 1:57	0.31			
SR4	7/5/2019 2:17	0.23				SR12	7/5/2019 2:17	0.31			
SR4	7/5/2019 2:37	0.21				SR12	7/5/2019 2:37	0.30			
SR4	7/5/2019 2:57	0.21				SR12	7/5/2019 2:57	0.31			
SR4	7/5/2019 3:17	0.22				SR12	7/5/2019 3:17	0.29			
SR4	7/5/2019 3:37	0.22				SR12	7/5/2019 3:37	0.31			
SR4	7/5/2019 3:57	0.20				SR12	7/5/2019 3:57	0.30			
SR4	7/5/2019 4:17	0.22				SR12	7/5/2019 4:17	0.29			
SR4	7/5/2019 4:37	0.21				SR12	7/5/2019 4:37	0.29			
SR4	7/5/2019 4:57	0.21				SR12	7/5/2019 4:57	0.31			
SR4	7/5/2019 5:17	0.22				SR12	7/5/2019 5:17	0.29			
SR4	7/5/2019 5:37	0.20				SR12	7/5/2019 5:37	0.29			
SR4	7/5/2019 5:57	0.22				SR12	7/5/2019 5:57	0.30			
SR4						SR12					
SR4	7/5/2019 6:37	0.22				SR12	7/5/2019 6:37	0.29			
SR4	7/5/2019 6:57	0.22				SR12	7/5/2019 6:57	0.31			
SR4	7/5/2019 7:17	0.20				SR12	7/5/2019 7:17	0.30			
SR4	7/5/2019 7:37	0.20				SR12	7/5/2019 7:37	0.33			
SR4	7/5/2019 7:57	0.22				SR12	7/5/2019 7:57	0.30			
SR4	7/5/2019 8:17	0.21				SR12	7/5/2019 8:17	0.32			
SR4	7/5/2019 8:37	0.20				SR12	7/5/2019 8:37	0.30			
SR4	7/5/2019 8:57	0.20				SR12	7/5/2019 8:57	0.32			
SR4	7/5/2019 9:17	0.22				SR12	7/5/2019 9:17	0.30			
SR4	7/5/2019 9:37	0.25				SR12	7/5/2019 9:37	0.32			
SR4	7/5/2019 9:57	0.24				SR12	7/5/2019 9:57	0.30			
SR4	7/5/2019 10:17	0.24				SR12					
SR4	7/5/2019 10:37	0.25				SR12					
SR4	7/5/2019 10:57	0.24				SR12					
SR4	7/5/2019 11:17	0.25				SR12					
SR4	7/5/2019 11:37	0.23				SR12	7/5/2019 11:37	0.33			
SR4	7/5/2019 11:57	0.23				SR12	7/5/2019 11:57	0.30			
SR4						SR12	7/5/2019 12:17	0.32			
SR4						SR12	7/5/2019 12:37	0.32			
SR4						SR12	7/5/2019 12:57	0.32			
SR4						SR12	7/5/2019 13:17	0.33			
SR4						SR12	7/5/2019 13:37	0.31			
SR4	7/5/2019 13:57	0.25				SR12	7/5/2019 13:57	0.30			
SR4	7/5/2019 14:17	0.24				SR12	7/5/2019 14:17	0.32			
SR4	7/5/2019 14:37	0.25				SR12	7/5/2019 14:37	0.32			
SR4	7/5/2019 14:57	0.24				SR12	7/5/2019 14:57	0.34			
SR4	7/5/2019 15:17	0.23				SR12	7/5/2019 15:17	0.33			
SR4	7/5/2019 15:37	0.24				SR12	7/5/2019 15:37	0.33			
SR4	7/5/2019 15:57	0.24				SR12	7/5/2019 15:57	0.34			
SR4	7/5/2019 16:17	0.23				SR12	7/5/2019 16:17	0.34			
SR4	7/5/2019 16:37	0.23				SR12	7/5/2019 16:37	0.32			
SR4	7/5/2019 16:57	0.26				SR12	7/5/2019 16:57	0.35			
SR4	7/5/2019 17:17	0.25				SR12	7/5/2019 17:17	0.33			
SR4	7/5/2019 17:37	0.24				SR12	7/5/2019 17:37	0.34			
SR4	7/5/2019 17:57	0.26				SR12	7/5/2019 17:57	0.34			
SR4	7/5/2019 18:17	0.24				SR12	7/5/2019 18:17	0.32			
SR4	7/5/2019 18:37	0.26				SR12	7/5/2019 18:37	0.32			
SR4	7/5/2019 18:57	0.26				SR12	7/5/2019 18:57	0.35			
SR4	7/5/2019 19:17	0.26				SR12	7/5/2019 19:17	0.33			
SR4	7/5/2019 19:37	0.25				SR12	7/5/2019 19:37	0.34			
SR4	7/5/2019 19:57	0.26				SR12	7/5/2019 19:57	0.33			
SR4	7/5/2019 20:17	0.26				SR12	7/5/2019 20:17	0.34			
SR4	7/5/2019 20:37	0.25				SR12	7/5/2019 20:37	0.35			
SR4	7/5/2019 20:57	0.25				SR12	7/5/2019 20:57	0.34			
SR4	7/5/2019 21:17	0.25				SR12	7/5/2019 21:17	0.31			
SR4	7/5/2019 21:37	0.26				SR12	7/5/2019 21:37	0.32			
SR4	7/5/2019 21:57	0.25				SR12	7/5/2019 21:57	0.33			
SR4	7/5/2019 22:17	0.24				SR12	7/5/2019 22:17	0.33			
SR4	7/5/2019 22:37	0.26				SR12	7/5/2019 22:37	0.32			
SR4	7/5/2019 22:57	0.24				SR12	7/5/2019 22:57	0.31			
SR4	7/5/2019 23:17	0.25				SR12	7/5/2019 23:17	0.33			
SR4	7/5/2019 23:37	0.26				SR12	7/5/2019 23:37	0.31			
SR4	7/5/2019 23:57	0.25				SR12	7/5/2019 23:57	0.33			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH<sub>3</sub>-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
 SR4 monitoring station was under maintenance during 12:16-13:26.  
 SR12 monitoring station was under maintenance during 10:06-11:16.  
 SR13 monitoring station was under maintenance during 15:40-16:05.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/6/2019 0:17	0.28				SR12	7/6/2019 0:17	0.31			
SR4	7/6/2019 0:37	0.28				SR12	7/6/2019 0:37	0.32			
SR4	7/6/2019 0:57	0.28				SR12	7/6/2019 0:57	0.31			
SR4	7/6/2019 1:17	0.26				SR12	7/6/2019 1:17	0.30			
SR4	7/6/2019 1:37	0.28				SR12	7/6/2019 1:37	0.31			
SR4	7/6/2019 1:57	0.28				SR12	7/6/2019 1:57	0.32			
SR4	7/6/2019 2:17	0.25				SR12	7/6/2019 2:17	0.30			
SR4	7/6/2019 2:37	0.25				SR12	7/6/2019 2:37	0.31			
SR4	7/6/2019 2:57	0.28				SR12	7/6/2019 2:57	0.31			
SR4	7/6/2019 3:17	0.25				SR12	7/6/2019 3:17	0.31			
SR4	7/6/2019 3:37	0.28				SR12	7/6/2019 3:37	0.32			
SR4	7/6/2019 3:57	0.27				SR12	7/6/2019 3:57	0.31			
SR4	7/6/2019 4:17	0.27				SR12	7/6/2019 4:17	0.31			
SR4	7/6/2019 4:37	0.28				SR12	7/6/2019 4:37	0.30			
SR4	7/6/2019 4:57	0.28				SR12	7/6/2019 4:57	0.29			
SR4	7/6/2019 5:17	0.27				SR12	7/6/2019 5:17	0.31			
SR4	7/6/2019 5:37	0.26				SR12	7/6/2019 5:37	0.29			
SR4	7/6/2019 5:57	0.25				SR12	7/6/2019 5:57	0.30			
SR4						SR12					
SR4	7/6/2019 6:37	0.27				SR12	7/6/2019 6:37	0.30			
SR4	7/6/2019 6:57	0.28				SR12	7/6/2019 6:57	0.29			
SR4	7/6/2019 7:17	0.28				SR12	7/6/2019 7:17	0.30			
SR4	7/6/2019 7:37	0.29				SR12	7/6/2019 7:37	0.28			
SR4	7/6/2019 7:57	0.29				SR12	7/6/2019 7:57	0.28			
SR4	7/6/2019 8:17	0.28				SR12	7/6/2019 8:17	0.27			
SR4	7/6/2019 8:37	0.29				SR12	7/6/2019 8:37	0.27			
SR4	7/6/2019 8:57	0.28				SR12	7/6/2019 8:57	0.28			
SR4	7/6/2019 9:17	0.28				SR12	7/6/2019 9:17	0.28			
SR4	7/6/2019 9:37	0.27				SR12	7/6/2019 9:37	0.27			
SR4	7/6/2019 9:57	0.29				SR12	7/6/2019 9:57	0.26			
SR4	7/6/2019 10:17	0.27				SR12	7/6/2019 10:17	0.27			
SR4	7/6/2019 10:37	0.29				SR12	7/6/2019 10:37	0.25			
SR4	7/6/2019 10:57	0.29				SR12	7/6/2019 10:57	0.27			
SR4	7/6/2019 11:17	0.27				SR12	7/6/2019 11:17	0.26			
SR4	7/6/2019 11:37	0.27				SR12	7/6/2019 11:37	0.25			
SR4	7/6/2019 11:57	0.27				SR12	7/6/2019 11:57	0.27			
SR4	7/6/2019 12:17	0.29				SR12	7/6/2019 12:17	0.26			
SR4	7/6/2019 12:37	0.28				SR12	7/6/2019 12:37	0.27			
SR4	7/6/2019 12:57	0.28				SR12	7/6/2019 12:57	0.25			
SR4	7/6/2019 13:17	0.28				SR12	7/6/2019 13:17	0.25			
SR4	7/6/2019 13:37	0.29				SR12	7/6/2019 13:37	0.26			
SR4	7/6/2019 13:57	0.28				SR12	7/6/2019 13:57	0.29			
SR4	7/6/2019 14:17	0.27				SR12	7/6/2019 14:17	0.29			
SR4	7/6/2019 14:37	0.26				SR12	7/6/2019 14:37	0.28			
SR4	7/6/2019 14:57	0.26				SR12	7/6/2019 14:57	0.29			
SR4	7/6/2019 15:17	0.28				SR12	7/6/2019 15:17	0.31			
SR4	7/6/2019 15:37	0.26				SR12	7/6/2019 15:37	0.30			
SR4	7/6/2019 15:57	0.26				SR12	7/6/2019 15:57	0.31			
SR4	7/6/2019 16:17	0.27				SR12	7/6/2019 16:17	0.28			
SR4	7/6/2019 16:37	0.27				SR12	7/6/2019 16:37	0.28			
SR4	7/6/2019 16:57	0.27				SR12	7/6/2019 16:57	0.28			
SR4	7/6/2019 17:17	0.26				SR12	7/6/2019 17:17	0.28			
SR4	7/6/2019 17:37	0.28				SR12	7/6/2019 17:37	0.29			
SR4	7/6/2019 17:57	0.27				SR12	7/6/2019 17:57	0.29			
SR4	7/6/2019 18:17	0.27				SR12	7/6/2019 18:17	0.28			
SR4	7/6/2019 18:37	0.28				SR12	7/6/2019 18:37	0.31			
SR4	7/6/2019 18:57	0.26				SR12	7/6/2019 18:57	0.28			
SR4	7/6/2019 19:17	0.28				SR12	7/6/2019 19:17	0.30			
SR4	7/6/2019 19:37	0.28				SR12	7/6/2019 19:37	0.31			
SR4	7/6/2019 19:57	0.26				SR12	7/6/2019 19:57	0.28			
SR4	7/6/2019 20:17	0.27				SR12	7/6/2019 20:17	0.26			
SR4	7/6/2019 20:37	0.26				SR12	7/6/2019 20:37	0.27			
SR4	7/6/2019 20:57	0.27				SR12	7/6/2019 20:57	0.26			
SR4	7/6/2019 21:17	0.28				SR12	7/6/2019 21:17	0.26			
SR4	7/6/2019 21:37	0.27				SR12	7/6/2019 21:37	0.28			
SR4	7/6/2019 21:57	0.26				SR12	7/6/2019 21:57	0.28			
SR4	7/6/2019 22:17	0.27				SR12	7/6/2019 22:17	0.27			
SR4	7/6/2019 22:37	0.26				SR12	7/6/2019 22:37	0.26			
SR4	7/6/2019 22:57	0.27				SR12	7/6/2019 22:57	0.26			
SR4	7/6/2019 23:17	0.26				SR12	7/6/2019 23:17	0.26			
SR4	7/6/2019 23:37	0.25				SR12	7/6/2019 23:37	0.28			
SR4	7/6/2019 23:57	0.26				SR12	7/6/2019 23:57	0.27			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/7/2019 0:17	0.26				SR12	7/7/2019 0:17	0.26			
SR4	7/7/2019 0:37	0.26				SR12	7/7/2019 0:37	0.27			
SR4	7/7/2019 0:57	0.27				SR12	7/7/2019 0:57	0.27			
SR4	7/7/2019 1:17	0.25				SR12	7/7/2019 1:17	0.26			
SR4	7/7/2019 1:37	0.27				SR12	7/7/2019 1:37	0.26			
SR4	7/7/2019 1:57	0.26				SR12	7/7/2019 1:57	0.27			
SR4	7/7/2019 2:17	0.27				SR12	7/7/2019 2:17	0.26			
SR4	7/7/2019 2:37	0.26				SR12	7/7/2019 2:37	0.26			
SR4	7/7/2019 2:57	0.25				SR12	7/7/2019 2:57	0.27			
SR4	7/7/2019 3:17	0.27				SR12	7/7/2019 3:17	0.26			
SR4	7/7/2019 3:37	0.27				SR12	7/7/2019 3:37	0.25			
SR4	7/7/2019 3:57	0.26				SR12	7/7/2019 3:57	0.26			
SR4	7/7/2019 4:17	0.26				SR12	7/7/2019 4:17	0.25			
SR4	7/7/2019 4:37	0.25				SR12	7/7/2019 4:37	0.25			
SR4	7/7/2019 4:57	0.26				SR12	7/7/2019 4:57	0.25			
SR4	7/7/2019 5:17	0.25				SR12	7/7/2019 5:17	0.24			
SR4	7/7/2019 5:37	0.26				SR12	7/7/2019 5:37	0.26			
SR4	7/7/2019 5:57	0.25				SR12	7/7/2019 5:57	0.25			
SR4						SR12					
SR4	7/7/2019 6:37	0.27				SR12	7/7/2019 6:37	0.26			
SR4	7/7/2019 6:57	0.26				SR12	7/7/2019 6:57	0.26			
SR4	7/7/2019 7:17	0.26				SR12	7/7/2019 7:17	0.24			
SR4	7/7/2019 7:37	0.24				SR12	7/7/2019 7:37	0.26			
SR4	7/7/2019 7:57	0.25				SR12	7/7/2019 7:57	0.24			
SR4	7/7/2019 8:17	0.24				SR12	7/7/2019 8:17	0.26			
SR4	7/7/2019 8:37	0.26				SR12	7/7/2019 8:37	0.24			
SR4	7/7/2019 8:57	0.26				SR12	7/7/2019 8:57	0.25			
SR4	7/7/2019 9:17	0.24				SR12	7/7/2019 9:17	0.24			
SR4	7/7/2019 9:37	0.25				SR12	7/7/2019 9:37	0.24			
SR4	7/7/2019 9:57	0.26				SR12	7/7/2019 9:57	0.26			
SR4	7/7/2019 10:17	0.26				SR12	7/7/2019 10:17	0.25			
SR4	7/7/2019 10:37	0.24				SR12	7/7/2019 10:37	0.24			
SR4	7/7/2019 10:57	0.26				SR12	7/7/2019 10:57	0.24			
SR4	7/7/2019 11:17	0.25				SR12	7/7/2019 11:17	0.25			
SR4	7/7/2019 11:37	0.25				SR12	7/7/2019 11:37	0.23			
SR4	7/7/2019 11:57	0.25				SR12	7/7/2019 11:57	0.24			
SR4	7/7/2019 12:17	0.26				SR12	7/7/2019 12:17	0.23			
SR4	7/7/2019 12:37	0.26				SR12	7/7/2019 12:37	0.25			
SR4	7/7/2019 12:57	0.24				SR12	7/7/2019 12:57	0.24			
SR4	7/7/2019 13:17	0.24				SR12	7/7/2019 13:17	0.23			
SR4	7/7/2019 13:37	0.22				SR12	7/7/2019 13:37	0.24			
SR4	7/7/2019 13:57	0.22				SR12	7/7/2019 13:57	0.23			
SR4	7/7/2019 14:17	0.24				SR12	7/7/2019 14:17	0.25			
SR4	7/7/2019 14:37	0.24				SR12	7/7/2019 14:37	0.24			
SR4	7/7/2019 14:57	0.22				SR12	7/7/2019 14:57	0.23			
SR4	7/7/2019 15:17	0.23				SR12	7/7/2019 15:17	0.24			
SR4	7/7/2019 15:37	0.22				SR12	7/7/2019 15:37	0.25			
SR4	7/7/2019 15:57	0.22				SR12	7/7/2019 15:57	0.25			
SR4	7/7/2019 16:17	0.23				SR12	7/7/2019 16:17	0.24			
SR4	7/7/2019 16:37	0.23				SR12	7/7/2019 16:37	0.23			
SR4	7/7/2019 16:57	0.24				SR12	7/7/2019 16:57	0.22			
SR4	7/7/2019 17:17	0.24				SR12	7/7/2019 17:17	0.23			
SR4	7/7/2019 17:37	0.23				SR12	7/7/2019 17:37	0.24			
SR4	7/7/2019 17:57	0.23				SR12	7/7/2019 17:57	0.23			
SR4	7/7/2019 18:17	0.22				SR12	7/7/2019 18:17	0.22			
SR4	7/7/2019 18:37	0.23				SR12	7/7/2019 18:37	0.23			
SR4	7/7/2019 18:57	0.22				SR12	7/7/2019 18:57	0.23			
SR4	7/7/2019 19:17	0.22				SR12	7/7/2019 19:17	0.24			
SR4	7/7/2019 19:37	0.21				SR12	7/7/2019 19:37	0.24			
SR4	7/7/2019 19:57	0.21				SR12	7/7/2019 19:57	0.23			
SR4	7/7/2019 20:17	0.22				SR12	7/7/2019 20:17	0.24			
SR4	7/7/2019 20:37	0.22				SR12	7/7/2019 20:37	0.22			
SR4	7/7/2019 20:57	0.20				SR12	7/7/2019 20:57	0.24			
SR4	7/7/2019 21:17	0.20				SR12	7/7/2019 21:17	0.24			
SR4	7/7/2019 21:37	0.22				SR12	7/7/2019 21:37	0.24			
SR4	7/7/2019 21:57	0.22				SR12	7/7/2019 21:57	0.23			
SR4	7/7/2019 22:17	0.20				SR12	7/7/2019 22:17	0.22			
SR4	7/7/2019 22:37	0.21				SR12	7/7/2019 22:37	0.23			
SR4	7/7/2019 22:57	0.21				SR12	7/7/2019 22:57	0.21			
SR4	7/7/2019 23:17	0.22				SR12	7/7/2019 23:17	0.22			
SR4	7/7/2019 23:37	0.20				SR12	7/7/2019 23:37	0.23			
SR4	7/7/2019 23:57	0.22				SR12	7/7/2019 23:57	0.22			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.









24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/8/2019 0:17	0.22				SR12	7/8/2019 0:17	0.23			
SR4	7/8/2019 0:37	0.20				SR12	7/8/2019 0:37	0.21			
SR4	7/8/2019 0:57	0.20				SR12	7/8/2019 0:57	0.23			
SR4	7/8/2019 1:17	0.20				SR12	7/8/2019 1:17	0.21			
SR4	7/8/2019 1:37	0.20				SR12	7/8/2019 1:37	0.21			
SR4	7/8/2019 1:57	0.19				SR12	7/8/2019 1:57	0.23			
SR4	7/8/2019 2:17	0.20				SR12	7/8/2019 2:17	0.22			
SR4	7/8/2019 2:37	0.18				SR12	7/8/2019 2:37	0.23			
SR4	7/8/2019 2:57	0.19				SR12	7/8/2019 2:57	0.21			
SR4	7/8/2019 3:17	0.18				SR12	7/8/2019 3:17	0.20			
SR4	7/8/2019 3:37	0.20				SR12	7/8/2019 3:37	0.21			
SR4	7/8/2019 3:57	0.20				SR12	7/8/2019 3:57	0.19			
SR4	7/8/2019 4:17	0.20				SR12	7/8/2019 4:17	0.21			
SR4	7/8/2019 4:37	0.20				SR12	7/8/2019 4:37	0.20			
SR4	7/8/2019 4:57	0.18				SR12	7/8/2019 4:57	0.19			
SR4	7/8/2019 5:17	0.20				SR12	7/8/2019 5:17	0.21			
SR4	7/8/2019 5:37	0.19				SR12	7/8/2019 5:37	0.21			
SR4	7/8/2019 5:57	0.18				SR12	7/8/2019 5:57	0.20			
SR4						SR12					
SR4	7/8/2019 6:37	0.18				SR12	7/8/2019 6:37	0.19			
SR4	7/8/2019 6:57	0.18				SR12	7/8/2019 6:57	0.21			
SR4	7/8/2019 7:17	0.17				SR12	7/8/2019 7:17	0.21			
SR4	7/8/2019 7:37	0.16				SR12	7/8/2019 7:37	0.19			
SR4	7/8/2019 7:57	0.18				SR12	7/8/2019 7:57	0.19			
SR4	7/8/2019 8:17	0.16				SR12	7/8/2019 8:17	0.21			
SR4	7/8/2019 8:37	0.17				SR12	7/8/2019 8:37	0.19			
SR4	7/8/2019 8:57	0.18				SR12	7/8/2019 8:57	0.19			
SR4	7/8/2019 9:17	0.18				SR12	7/8/2019 9:17	0.19			
SR4	7/8/2019 9:37	0.18				SR12	7/8/2019 9:37	0.19			
SR4	7/8/2019 9:57	0.18				SR12	7/8/2019 9:57	0.19			
SR4	7/8/2019 10:17	0.18				SR12	7/8/2019 10:17	0.17			
SR4						SR12	7/8/2019 10:37	0.18			
SR4						SR12	7/8/2019 10:57	0.18			
SR4						SR12	7/8/2019 11:17	0.17			
SR4						SR12	7/8/2019 11:37	0.18			
SR4						SR12	7/8/2019 11:57	0.18			
SR4	7/8/2019 12:17	0.17				SR12	7/8/2019 12:17	0.18			
SR4	7/8/2019 12:37	0.17				SR12	7/8/2019 12:37	0.19			
SR4	7/8/2019 12:57	0.17				SR12	7/8/2019 12:57	0.18			
SR4	7/8/2019 13:17	0.16				SR12					
SR4	7/8/2019 13:37	0.18				SR12					
SR4	7/8/2019 13:57	0.17				SR12					
SR4	7/8/2019 14:17	0.17				SR12					
SR4	7/8/2019 14:37	0.16				SR12					
SR4	7/8/2019 14:57	0.15				SR12	7/8/2019 14:57	0.15			
SR4	7/8/2019 15:17	0.15				SR12	7/8/2019 15:17	0.17			
SR4	7/8/2019 15:37	0.17				SR12	7/8/2019 15:37	0.17			
SR4	7/8/2019 15:57	0.17				SR12	7/8/2019 15:57	0.15			
SR4	7/8/2019 16:17	0.16				SR12	7/8/2019 16:17	0.17			
SR4	7/8/2019 16:37	0.16				SR12	7/8/2019 16:37	0.17			
SR4	7/8/2019 16:57	0.17				SR12	7/8/2019 16:57	0.15			
SR4	7/8/2019 17:17	0.17				SR12	7/8/2019 17:17	0.17			
SR4	7/8/2019 17:37	0.15				SR12	7/8/2019 17:37	0.15			
SR4	7/8/2019 17:57	0.17				SR12	7/8/2019 17:57	0.17			
SR4	7/8/2019 18:17	0.16				SR12	7/8/2019 18:17	0.16			
SR4	7/8/2019 18:37	0.16				SR12	7/8/2019 18:37	0.16			
SR4	7/8/2019 18:57	0.16				SR12	7/8/2019 18:57	0.15			
SR4	7/8/2019 19:17	0.16				SR12	7/8/2019 19:17	0.13			
SR4	7/8/2019 19:37	0.16				SR12	7/8/2019 19:37	0.13			
SR4	7/8/2019 19:57	0.16				SR12	7/8/2019 19:57	0.14			
SR4	7/8/2019 20:17	0.14				SR12	7/8/2019 20:17	0.15			
SR4	7/8/2019 20:37	0.16				SR12	7/8/2019 20:37	0.14			
SR4	7/8/2019 20:57	0.14				SR12	7/8/2019 20:57	0.13			
SR4	7/8/2019 21:17	0.14				SR12	7/8/2019 21:17	0.14			
SR4	7/8/2019 21:37	0.16				SR12	7/8/2019 21:37	0.14			
SR4	7/8/2019 21:57	0.16				SR12	7/8/2019 21:57	0.15			
SR4	7/8/2019 22:17	0.16				SR12	7/8/2019 22:17	0.13			
SR4	7/8/2019 22:37	0.14				SR12	7/8/2019 22:37	0.15			
SR4	7/8/2019 22:57	0.14				SR12	7/8/2019 22:57	0.14			
SR4	7/8/2019 23:17	0.15				SR12	7/8/2019 23:17	0.15			
SR4	7/8/2019 23:37	0.16				SR12	7/8/2019 23:37	0.15			
SR4	7/8/2019 23:57	0.16				SR12	7/8/2019 23:57	0.13			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
 SR4 monitoring station was under maintenance during 10:31-11:41.  
 SR12 monitoring station was under maintenance during 13:11-14:26.  
 SR13 monitoring station was under maintenance during 16:10-16:35.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/9/2019 0:17	0.15				SR12	7/9/2019 0:17	0.13			
SR4	7/9/2019 0:37	0.14				SR12	7/9/2019 0:37	0.11			
SR4	7/9/2019 0:57	0.12				SR12	7/9/2019 0:57	0.11			
SR4	7/9/2019 1:17	0.14				SR12	7/9/2019 1:17	0.13			
SR4	7/9/2019 1:37	0.13				SR12	7/9/2019 1:37	0.13			
SR4	7/9/2019 1:57	0.13				SR12	7/9/2019 1:57	0.13			
SR4	7/9/2019 2:17	0.14				SR12	7/9/2019 2:17	0.12			
SR4	7/9/2019 2:37	0.13				SR12	7/9/2019 2:37	0.12			
SR4	7/9/2019 2:57	0.13				SR12	7/9/2019 2:57	0.11			
SR4	7/9/2019 3:17	0.14				SR12	7/9/2019 3:17	0.13			
SR4	7/9/2019 3:37	0.14				SR12	7/9/2019 3:37	0.12			
SR4	7/9/2019 3:57	0.12				SR12	7/9/2019 3:57	0.11			
SR4	7/9/2019 4:17	0.12				SR12	7/9/2019 4:17	0.12			
SR4	7/9/2019 4:37	0.13				SR12	7/9/2019 4:37	0.10			
SR4	7/9/2019 4:57	0.13				SR12	7/9/2019 4:57	0.12			
SR4	7/9/2019 5:17	0.13				SR12	7/9/2019 5:17	0.11			
SR4	7/9/2019 5:37	0.12				SR12	7/9/2019 5:37	0.10			
SR4	7/9/2019 5:57	0.12				SR12	7/9/2019 5:57	0.10			
SR4						SR12					
SR4	7/9/2019 6:37	0.12				SR12	7/9/2019 6:37	0.10			
SR4	7/9/2019 6:57	0.14				SR12	7/9/2019 6:57	0.10			
SR4	7/9/2019 7:17	0.12				SR12	7/9/2019 7:17	0.11			
SR4	7/9/2019 7:37	0.12				SR12	7/9/2019 7:37	0.12			
SR4	7/9/2019 7:57	0.12				SR12	7/9/2019 7:57	0.11			
SR4	7/9/2019 8:17	0.10				SR12	7/9/2019 8:17	0.12			
SR4	7/9/2019 8:37	0.12				SR12	7/9/2019 8:37	0.11			
SR4	7/9/2019 8:57	0.10				SR12	7/9/2019 8:57	0.11			
SR4	7/9/2019 9:17	0.11				SR12	7/9/2019 9:17	0.11			
SR4	7/9/2019 9:37	0.10				SR12	7/9/2019 9:37	0.10			
SR4	7/9/2019 9:57	0.12				SR12	7/9/2019 9:57	0.10			
SR4	7/9/2019 10:17	0.11				SR12	7/9/2019 10:17	0.10			
SR4	7/9/2019 10:37	0.10				SR12	7/9/2019 10:37	0.08			
SR4	7/9/2019 10:57	0.10				SR12	7/9/2019 10:57	0.08			
SR4	7/9/2019 11:17	0.08				SR12	7/9/2019 11:17	0.10			
SR4	7/9/2019 11:37	0.10				SR12	7/9/2019 11:37	0.08			
SR4	7/9/2019 11:57	0.08				SR12	7/9/2019 11:57	0.08			
SR4	7/9/2019 12:17	0.10				SR12	7/9/2019 12:17	0.10			
SR4	7/9/2019 12:37	0.09				SR12	7/9/2019 12:37	0.10			
SR4	7/9/2019 12:57	0.08				SR12	7/9/2019 12:57	0.10			
SR4	7/9/2019 13:17	0.10				SR12	7/9/2019 13:17	0.11			
SR4	7/9/2019 13:37	0.10				SR12	7/9/2019 13:37	0.09			
SR4	7/9/2019 13:57	0.10				SR12	7/9/2019 13:57	0.11			
SR4	7/9/2019 14:17	0.10				SR12	7/9/2019 14:17	0.10			
SR4	7/9/2019 14:37	0.10				SR12	7/9/2019 14:37	0.09			
SR4	7/9/2019 14:57	0.09				SR12	7/9/2019 14:57	0.09			
SR4	7/9/2019 15:17	0.09				SR12	7/9/2019 15:17	0.11			
SR4	7/9/2019 15:37	0.09				SR12	7/9/2019 15:37	0.11			
SR4	7/9/2019 15:57	0.10				SR12	7/9/2019 15:57	0.09			
SR4	7/9/2019 16:17	0.07				SR12	7/9/2019 16:17	0.10			
SR4	7/9/2019 16:37	0.08				SR12	7/9/2019 16:37	0.11			
SR4	7/9/2019 16:57	0.06				SR12	7/9/2019 16:57	0.10			
SR4	7/9/2019 17:17	0.07				SR12	7/9/2019 17:17	0.13			
SR4	7/9/2019 17:37	0.07				SR12	7/9/2019 17:37	0.11			
SR4	7/9/2019 17:57	0.06				SR12	7/9/2019 17:57	0.12			
SR4	7/9/2019 18:17	0.07				SR12	7/9/2019 18:17	0.13			
SR4	7/9/2019 18:37	0.06				SR12	7/9/2019 18:37	0.12			
SR4	7/9/2019 18:57	0.07				SR12	7/9/2019 18:57	0.12			
SR4	7/9/2019 19:17	0.06				SR12	7/9/2019 19:17	0.10			
SR4	7/9/2019 19:37	0.08				SR12	7/9/2019 19:37	0.12			
SR4	7/9/2019 19:57	0.07				SR12	7/9/2019 19:57	0.12			
SR4	7/9/2019 20:17	0.08				SR12	7/9/2019 20:17	0.13			
SR4	7/9/2019 20:37	0.08				SR12	7/9/2019 20:37	0.13			
SR4	7/9/2019 20:57	0.07				SR12	7/9/2019 20:57	0.10			
SR4	7/9/2019 21:17	0.06				SR12	7/9/2019 21:17	0.13			
SR4	7/9/2019 21:37	0.08				SR12	7/9/2019 21:37	0.12			
SR4	7/9/2019 21:57	0.08				SR12	7/9/2019 21:57	0.12			
SR4	7/9/2019 22:17	0.08				SR12	7/9/2019 22:17	0.12			
SR4	7/9/2019 22:37	0.08				SR12	7/9/2019 22:37	0.12			
SR4	7/9/2019 22:57	0.08				SR12	7/9/2019 22:57	0.12			
SR4	7/9/2019 23:17	0.09				SR12	7/9/2019 23:17	0.11			
SR4	7/9/2019 23:37	0.09				SR12	7/9/2019 23:37	0.11			
SR4	7/9/2019 23:57	0.10				SR12	7/9/2019 23:57	0.11			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
 SR5 monitoring station was under maintenance during 14:10-14:35.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/10/2019 0:17	0.09				SR12	7/10/2019 0:17	0.11			
SR4	7/10/2019 0:37	0.10				SR12	7/10/2019 0:37	0.13			
SR4	7/10/2019 0:57	0.09				SR12	7/10/2019 0:57	0.12			
SR4	7/10/2019 1:17	0.10				SR12	7/10/2019 1:17	0.12			
SR4	7/10/2019 1:37	0.09				SR12	7/10/2019 1:37	0.11			
SR4	7/10/2019 1:57	0.08				SR12	7/10/2019 1:57	0.14			
SR4	7/10/2019 2:17	0.08				SR12	7/10/2019 2:17	0.11			
SR4	7/10/2019 2:37	0.09				SR12	7/10/2019 2:37	0.13			
SR4	7/10/2019 2:57	0.10				SR12	7/10/2019 2:57	0.12			
SR4	7/10/2019 3:17	0.09				SR12	7/10/2019 3:17	0.12			
SR4	7/10/2019 3:37	0.10				SR12	7/10/2019 3:37	0.14			
SR4	7/10/2019 3:57	0.09				SR12	7/10/2019 3:57	0.11			
SR4	7/10/2019 4:17	0.09				SR12	7/10/2019 4:17	0.14			
SR4	7/10/2019 4:37	0.09				SR12	7/10/2019 4:37	0.11			
SR4	7/10/2019 4:57	0.09				SR12	7/10/2019 4:57	0.11			
SR4	7/10/2019 5:17	0.09				SR12	7/10/2019 5:17	0.11			
SR4	7/10/2019 5:37	0.09				SR12	7/10/2019 5:37	0.14			
SR4	7/10/2019 5:57	0.10				SR12	7/10/2019 5:57	0.11			
SR4						SR12					
SR4	7/10/2019 6:37	0.11				SR12	7/10/2019 6:37	0.15			
SR4	7/10/2019 6:57	0.11				SR12	7/10/2019 6:57	0.14			
SR4	7/10/2019 7:17	0.10				SR12	7/10/2019 7:17	0.16			
SR4	7/10/2019 7:37	0.10				SR12	7/10/2019 7:37	0.16			
SR4	7/10/2019 7:57	0.11				SR12	7/10/2019 7:57	0.14			
SR4	7/10/2019 8:17	0.10				SR12	7/10/2019 8:17	0.14			
SR4	7/10/2019 8:37	0.10				SR12	7/10/2019 8:37	0.15			
SR4	7/10/2019 8:57	0.11				SR12	7/10/2019 8:57	0.15			
SR4	7/10/2019 9:17	0.10				SR12	7/10/2019 9:17	0.15			
SR4	7/10/2019 9:37	0.12				SR12	7/10/2019 9:37	0.16			
SR4	7/10/2019 9:57	0.12				SR12	7/10/2019 9:57	0.14			
SR4	7/10/2019 10:17	0.11				SR12	7/10/2019 10:17	0.15			
SR4	7/10/2019 10:37	0.10				SR12	7/10/2019 10:37	0.15			
SR4	7/10/2019 10:57	0.11				SR12	7/10/2019 10:57	0.16			
SR4	7/10/2019 11:17	0.10				SR12	7/10/2019 11:17	0.16			
SR4	7/10/2019 11:37	0.10				SR12	7/10/2019 11:37	0.16			
SR4	7/10/2019 11:57	0.11				SR12	7/10/2019 11:57	0.14			
SR4	7/10/2019 12:17	0.12				SR12	7/10/2019 12:17	0.14			
SR4	7/10/2019 12:37	0.12				SR12	7/10/2019 12:37	0.15			
SR4	7/10/2019 12:57	0.11				SR12	7/10/2019 12:57	0.14			
SR4	7/10/2019 13:17	0.11				SR12	7/10/2019 13:17	0.15			
SR4	7/10/2019 13:37	0.10				SR12	7/10/2019 13:37	0.15			
SR4	7/10/2019 13:57	0.10				SR12	7/10/2019 13:57	0.13			
SR4	7/10/2019 14:17	0.12				SR12	7/10/2019 14:17	0.15			
SR4	7/10/2019 14:37	0.12				SR12	7/10/2019 14:37	0.13			
SR4	7/10/2019 14:57	0.12				SR12	7/10/2019 14:57	0.15			
SR4	7/10/2019 15:17	0.11				SR12	7/10/2019 15:17	0.14			
SR4	7/10/2019 15:37	0.11				SR12	7/10/2019 15:37	0.13			
SR4	7/10/2019 15:57	0.12				SR12	7/10/2019 15:57	0.14			
SR4	7/10/2019 16:17	0.12				SR12	7/10/2019 16:17	0.13			
SR4	7/10/2019 16:37	0.12				SR12	7/10/2019 16:37	0.15			
SR4	7/10/2019 16:57	0.11				SR12	7/10/2019 16:57	0.13			
SR4	7/10/2019 17:17	0.11				SR12	7/10/2019 17:17	0.15			
SR4	7/10/2019 17:37	0.13				SR12	7/10/2019 17:37	0.15			
SR4	7/10/2019 17:57	0.13				SR12	7/10/2019 17:57	0.14			
SR4	7/10/2019 18:17	0.11				SR12	7/10/2019 18:17	0.14			
SR4	7/10/2019 18:37	0.11				SR12	7/10/2019 18:37	0.14			
SR4	7/10/2019 18:57	0.12				SR12	7/10/2019 18:57	0.13			
SR4	7/10/2019 19:17	0.12				SR12	7/10/2019 19:17	0.13			
SR4	7/10/2019 19:37	0.12				SR12	7/10/2019 19:37	0.13			
SR4	7/10/2019 19:57	0.12				SR12	7/10/2019 19:57	0.11			
SR4	7/10/2019 20:17	0.11				SR12	7/10/2019 20:17	0.12			
SR4	7/10/2019 20:37	0.11				SR12	7/10/2019 20:37	0.11			
SR4	7/10/2019 20:57	0.11				SR12	7/10/2019 20:57	0.13			
SR4	7/10/2019 21:17	0.11				SR12	7/10/2019 21:17	0.13			
SR4	7/10/2019 21:37	0.12				SR12	7/10/2019 21:37	0.13			
SR4	7/10/2019 21:57	0.11				SR12	7/10/2019 21:57	0.12			
SR4	7/10/2019 22:17	0.12				SR12	7/10/2019 22:17	0.13			
SR4	7/10/2019 22:37	0.11				SR12	7/10/2019 22:37	0.13			
SR4	7/10/2019 22:57	0.12				SR12	7/10/2019 22:57	0.11			
SR4	7/10/2019 23:17	0.14				SR12	7/10/2019 23:17	0.13			
SR4	7/10/2019 23:37	0.14				SR12	7/10/2019 23:37	0.13			
SR4	7/10/2019 23:57	0.13				SR12	7/10/2019 23:57	0.12			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.









24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/11/2019 0:17	0.14				SR12	7/11/2019 0:17	0.13			
SR4	7/11/2019 0:37	0.12				SR12	7/11/2019 0:37	0.11			
SR4	7/11/2019 0:57	0.13				SR12	7/11/2019 0:57	0.09			
SR4	7/11/2019 1:17	0.12				SR12	7/11/2019 1:17	0.09			
SR4	7/11/2019 1:37	0.13				SR12	7/11/2019 1:37	0.09			
SR4	7/11/2019 1:57	0.14				SR12	7/11/2019 1:57	0.11			
SR4	7/11/2019 2:17	0.14				SR12	7/11/2019 2:17	0.11			
SR4	7/11/2019 2:37	0.14				SR12	7/11/2019 2:37	0.10			
SR4	7/11/2019 2:57	0.13				SR12	7/11/2019 2:57	0.11			
SR4	7/11/2019 3:17	0.14				SR12	7/11/2019 3:17	0.09			
SR4	7/11/2019 3:37	0.12				SR12	7/11/2019 3:37	0.10			
SR4	7/11/2019 3:57	0.12				SR12	7/11/2019 3:57	0.11			
SR4	7/11/2019 4:17	0.14				SR12	7/11/2019 4:17	0.09			
SR4	7/11/2019 4:37	0.12				SR12	7/11/2019 4:37	0.10			
SR4	7/11/2019 4:57	0.12				SR12	7/11/2019 4:57	0.10			
SR4	7/11/2019 5:17	0.12				SR12	7/11/2019 5:17	0.11			
SR4	7/11/2019 5:37	0.13				SR12	7/11/2019 5:37	0.09			
SR4	7/11/2019 5:57	0.12				SR12	7/11/2019 5:57	0.11			
SR4						SR12					
SR4	7/11/2019 6:37	0.12				SR12	7/11/2019 6:37	0.11			
SR4	7/11/2019 6:57	0.14				SR12	7/11/2019 6:57	0.10			
SR4	7/11/2019 7:17	0.12				SR12	7/11/2019 7:17	0.10			
SR4	7/11/2019 7:37	0.14				SR12	7/11/2019 7:37	0.12			
SR4	7/11/2019 7:57	0.12				SR12	7/11/2019 7:57	0.10			
SR4	7/11/2019 8:17	0.14				SR12	7/11/2019 8:17	0.11			
SR4	7/11/2019 8:37	0.14				SR12	7/11/2019 8:37	0.10			
SR4	7/11/2019 8:57	0.13				SR12	7/11/2019 8:57	0.11			
SR4	7/11/2019 9:17	0.12				SR12	7/11/2019 9:17	0.12			
SR4	7/11/2019 9:37	0.13				SR12	7/11/2019 9:37	0.10			
SR4	7/11/2019 9:57	0.14				SR12	7/11/2019 9:57	0.10			
SR4	7/11/2019 10:17	0.14				SR12	7/11/2019 10:17	0.12			
SR4	7/11/2019 10:37	0.14				SR12	7/11/2019 10:37	0.10			
SR4	7/11/2019 10:57	0.13				SR12	7/11/2019 10:57	0.10			
SR4	7/11/2019 11:17	0.13				SR12	7/11/2019 11:17	0.11			
SR4	7/11/2019 11:37	0.12				SR12	7/11/2019 11:37	0.10			
SR4	7/11/2019 11:57	0.14				SR12	7/11/2019 11:57	0.10			
SR4	7/11/2019 12:17	0.14				SR12	7/11/2019 12:17	0.10			
SR4	7/11/2019 12:37	0.12				SR12	7/11/2019 12:37	0.11			
SR4	7/11/2019 12:57	0.12				SR12	7/11/2019 12:57	0.12			
SR4	7/11/2019 13:17	0.12				SR12	7/11/2019 13:17	0.12			
SR4	7/11/2019 13:37	0.15				SR12	7/11/2019 13:37	0.12			
SR4	7/11/2019 13:57	0.13				SR12	7/11/2019 13:57	0.12			
SR4	7/11/2019 14:17	0.13				SR12	7/11/2019 14:17	0.12			
SR4	7/11/2019 14:37	0.13				SR12	7/11/2019 14:37	0.13			
SR4	7/11/2019 14:57	0.13				SR12	7/11/2019 14:57	0.14			
SR4	7/11/2019 15:17	0.12				SR12	7/11/2019 15:17	0.13			
SR4	7/11/2019 15:37	0.12				SR12	7/11/2019 15:37	0.12			
SR4	7/11/2019 15:57	0.12				SR12	7/11/2019 15:57	0.13			
SR4	7/11/2019 16:17	0.13				SR12	7/11/2019 16:17	0.12			
SR4	7/11/2019 16:37	0.14				SR12	7/11/2019 16:37	0.13			
SR4	7/11/2019 16:57	0.15				SR12	7/11/2019 16:57	0.13			
SR4	7/11/2019 17:17	0.13				SR12	7/11/2019 17:17	0.14			
SR4	7/11/2019 17:37	0.12				SR12	7/11/2019 17:37	0.12			
SR4	7/11/2019 17:57	0.12				SR12	7/11/2019 17:57	0.13			
SR4	7/11/2019 18:17	0.14				SR12	7/11/2019 18:17	0.14			
SR4	7/11/2019 18:37	0.12				SR12	7/11/2019 18:37	0.13			
SR4	7/11/2019 18:57	0.12				SR12	7/11/2019 18:57	0.14			
SR4	7/11/2019 19:17	0.12				SR12	7/11/2019 19:17	0.12			
SR4	7/11/2019 19:37	0.11				SR12	7/11/2019 19:37	0.14			
SR4	7/11/2019 19:57	0.11				SR12	7/11/2019 19:57	0.14			
SR4	7/11/2019 20:17	0.10				SR12	7/11/2019 20:17	0.14			
SR4	7/11/2019 20:37	0.12				SR12	7/11/2019 20:37	0.14			
SR4	7/11/2019 20:57	0.10				SR12	7/11/2019 20:57	0.15			
SR4	7/11/2019 21:17	0.12				SR12	7/11/2019 21:17	0.14			
SR4	7/11/2019 21:37	0.13				SR12	7/11/2019 21:37	0.14			
SR4	7/11/2019 21:57	0.11				SR12	7/11/2019 21:57	0.15			
SR4	7/11/2019 22:17	0.12				SR12	7/11/2019 22:17	0.14			
SR4	7/11/2019 22:37	0.11				SR12	7/11/2019 22:37	0.14			
SR4	7/11/2019 22:57	0.13				SR12	7/11/2019 22:57	0.14			
SR4	7/11/2019 23:17	0.12				SR12	7/11/2019 23:17	0.14			
SR4	7/11/2019 23:37	0.12				SR12	7/11/2019 23:37	0.15			
SR4	7/11/2019 23:57	0.13				SR12	7/11/2019 23:57	0.14			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH<sub>3</sub>-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
 SR5 monitoring station was under maintenance during 11:25-11:50.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/12/2019 0:17	0.12				SR12	7/12/2019 0:17	0.15			
SR4	7/12/2019 0:37	0.11				SR12	7/12/2019 0:37	0.15			
SR4	7/12/2019 0:57	0.12				SR12	7/12/2019 0:57	0.14			
SR4	7/12/2019 1:17	0.13				SR12	7/12/2019 1:17	0.15			
SR4	7/12/2019 1:37	0.10				SR12	7/12/2019 1:37	0.15			
SR4	7/12/2019 1:57	0.09				SR12	7/12/2019 1:57	0.15			
SR4	7/12/2019 2:17	0.10				SR12	7/12/2019 2:17	0.15			
SR4	7/12/2019 2:37	0.09				SR12	7/12/2019 2:37	0.16			
SR4	7/12/2019 2:57	0.10				SR12	7/12/2019 2:57	0.16			
SR4	7/12/2019 3:17	0.10				SR12	7/12/2019 3:17	0.16			
SR4	7/12/2019 3:37	0.11				SR12	7/12/2019 3:37	0.17			
SR4	7/12/2019 3:57	0.09				SR12	7/12/2019 3:57	0.15			
SR4	7/12/2019 4:17	0.09				SR12	7/12/2019 4:17	0.15			
SR4	7/12/2019 4:37	0.11				SR12	7/12/2019 4:37	0.16			
SR4	7/12/2019 4:57	0.10				SR12	7/12/2019 4:57	0.17			
SR4	7/12/2019 5:17	0.09				SR12	7/12/2019 5:17	0.17			
SR4	7/12/2019 5:37	0.11				SR12	7/12/2019 5:37	0.16			
SR4	7/12/2019 5:57	0.10				SR12	7/12/2019 5:57	0.15			
SR4						SR12					
SR4	7/12/2019 6:37	0.11				SR12	7/12/2019 6:37	0.17			
SR4	7/12/2019 6:57	0.10				SR12	7/12/2019 6:57	0.16			
SR4	7/12/2019 7:17	0.10				SR12	7/12/2019 7:17	0.17			
SR4	7/12/2019 7:37	0.11				SR12	7/12/2019 7:37	0.17			
SR4	7/12/2019 7:57	0.10				SR12	7/12/2019 7:57	0.17			
SR4	7/12/2019 8:17	0.09				SR12	7/12/2019 8:17	0.16			
SR4	7/12/2019 8:37	0.11				SR12	7/12/2019 8:37	0.17			
SR4	7/12/2019 8:57	0.10				SR12	7/12/2019 8:57	0.16			
SR4	7/12/2019 9:17	0.10				SR12	7/12/2019 9:17	0.15			
SR4	7/12/2019 9:37	0.09				SR12	7/12/2019 9:37	0.14			
SR4	7/12/2019 9:57	0.08				SR12					
SR4	7/12/2019 10:17	0.11				SR12					
SR4	7/12/2019 10:37	0.10				SR12					
SR4	7/12/2019 10:57	0.08				SR12					
SR4	7/12/2019 11:17	0.11				SR12					
SR4	7/12/2019 11:37	0.09				SR12	7/12/2019 11:37	0.15			
SR4	7/12/2019 11:57	0.09				SR12	7/12/2019 11:57	0.14			
SR4						SR12	7/12/2019 12:17	0.14			
SR4						SR12	7/12/2019 12:37	0.13			
SR4						SR12	7/12/2019 12:57	0.13			
SR4						SR12	7/12/2019 13:17	0.14			
SR4						SR12	7/12/2019 13:37	0.14			
SR4	7/12/2019 13:57	0.09				SR12	7/12/2019 13:57	0.15			
SR4	7/12/2019 14:17	0.10				SR12	7/12/2019 14:17	0.14			
SR4	7/12/2019 14:37	0.08				SR12	7/12/2019 14:37	0.15			
SR4	7/12/2019 14:57	0.09				SR12	7/12/2019 14:57	0.15			
SR4	7/12/2019 15:17	0.11				SR12	7/12/2019 15:17	0.13			
SR4	7/12/2019 15:37	0.12				SR12	7/12/2019 15:37	0.12			
SR4	7/12/2019 15:57	0.13				SR12	7/12/2019 15:57	0.12			
SR4	7/12/2019 16:17	0.11				SR12	7/12/2019 16:17	0.12			
SR4	7/12/2019 16:37	0.11				SR12	7/12/2019 16:37	0.13			
SR4	7/12/2019 16:57	0.12				SR12	7/12/2019 16:57	0.14			
SR4	7/12/2019 17:17	0.11				SR12	7/12/2019 17:17	0.12			
SR4	7/12/2019 17:37	0.11				SR12	7/12/2019 17:37	0.14			
SR4	7/12/2019 17:57	0.12				SR12	7/12/2019 17:57	0.14			
SR4	7/12/2019 18:17	0.12				SR12	7/12/2019 18:17	0.14			
SR4	7/12/2019 18:37	0.11				SR12	7/12/2019 18:37	0.13			
SR4	7/12/2019 18:57	0.12				SR12	7/12/2019 18:57	0.13			
SR4	7/12/2019 19:17	0.13				SR12	7/12/2019 19:17	0.14			
SR4	7/12/2019 19:37	0.13				SR12	7/12/2019 19:37	0.13			
SR4	7/12/2019 19:57	0.10				SR12	7/12/2019 19:57	0.13			
SR4	7/12/2019 20:17	0.11				SR12	7/12/2019 20:17	0.14			
SR4	7/12/2019 20:37	0.12				SR12	7/12/2019 20:37	0.13			
SR4	7/12/2019 20:57	0.12				SR12	7/12/2019 20:57	0.13			
SR4	7/12/2019 21:17	0.13				SR12	7/12/2019 21:17	0.13			
SR4	7/12/2019 21:37	0.10				SR12	7/12/2019 21:37	0.14			
SR4	7/12/2019 21:57	0.10				SR12	7/12/2019 21:57	0.14			
SR4	7/12/2019 22:17	0.13				SR12	7/12/2019 22:17	0.12			
SR4	7/12/2019 22:37	0.13				SR12	7/12/2019 22:37	0.13			
SR4	7/12/2019 22:57	0.12				SR12	7/12/2019 22:57	0.14			
SR4	7/12/2019 23:17	0.11				SR12	7/12/2019 23:17	0.14			
SR4	7/12/2019 23:37	0.13				SR12	7/12/2019 23:37	0.13			
SR4	7/12/2019 23:57	0.11				SR12	7/12/2019 23:57	0.14			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH<sub>3</sub>-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
 SR4 monitoring station was under maintenance during 12:01-13:21.  
 SR12 monitoring station was under maintenance during 9:56-11:11.  
 SR13 monitoring station was under maintenance during 14:45-15:10.









24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/13/2019 0:17	0.14				SR12	7/13/2019 0:17	0.14			
SR4	7/13/2019 0:37	0.14				SR12	7/13/2019 0:37	0.13			
SR4	7/13/2019 0:57	0.12				SR12	7/13/2019 0:57	0.15			
SR4	7/13/2019 1:17	0.11				SR12	7/13/2019 1:17	0.14			
SR4	7/13/2019 1:37	0.14				SR12	7/13/2019 1:37	0.14			
SR4	7/13/2019 1:57	0.12				SR12	7/13/2019 1:57	0.15			
SR4	7/13/2019 2:17	0.13				SR12	7/13/2019 2:17	0.14			
SR4	7/13/2019 2:37	0.12				SR12	7/13/2019 2:37	0.14			
SR4	7/13/2019 2:57	0.14				SR12	7/13/2019 2:57	0.13			
SR4	7/13/2019 3:17	0.14				SR12	7/13/2019 3:17	0.14			
SR4	7/13/2019 3:37	0.11				SR12	7/13/2019 3:37	0.14			
SR4	7/13/2019 3:57	0.13				SR12	7/13/2019 3:57	0.15			
SR4	7/13/2019 4:17	0.12				SR12	7/13/2019 4:17	0.13			
SR4	7/13/2019 4:37	0.12				SR12	7/13/2019 4:37	0.15			
SR4	7/13/2019 4:57	0.12				SR12	7/13/2019 4:57	0.15			
SR4	7/13/2019 5:17	0.11				SR12	7/13/2019 5:17	0.15			
SR4	7/13/2019 5:37	0.11				SR12	7/13/2019 5:37	0.14			
SR4	7/13/2019 5:57	0.14				SR12	7/13/2019 5:57	0.14			
SR4						SR12					
SR4	7/13/2019 6:37	0.12				SR12	7/13/2019 6:37	0.14			
SR4	7/13/2019 6:57	0.11				SR12	7/13/2019 6:57	0.13			
SR4	7/13/2019 7:17	0.13				SR12	7/13/2019 7:17	0.14			
SR4	7/13/2019 7:37	0.10				SR12	7/13/2019 7:37	0.12			
SR4	7/13/2019 7:57	0.10				SR12	7/13/2019 7:57	0.14			
SR4	7/13/2019 8:17	0.10				SR12	7/13/2019 8:17	0.14			
SR4	7/13/2019 8:37	0.12				SR12	7/13/2019 8:37	0.12			
SR4	7/13/2019 8:57	0.13				SR12	7/13/2019 8:57	0.13			
SR4	7/13/2019 9:17	0.13				SR12	7/13/2019 9:17	0.13			
SR4	7/13/2019 9:37	0.11				SR12	7/13/2019 9:37	0.12			
SR4	7/13/2019 9:57	0.12				SR12	7/13/2019 9:57	0.12			
SR4	7/13/2019 10:17	0.12				SR12	7/13/2019 10:17	0.13			
SR4	7/13/2019 10:37	0.12				SR12	7/13/2019 10:37	0.14			
SR4	7/13/2019 10:57	0.10				SR12	7/13/2019 10:57	0.14			
SR4	7/13/2019 11:17	0.11				SR12	7/13/2019 11:17	0.12			
SR4	7/13/2019 11:37	0.10				SR12	7/13/2019 11:37	0.14			
SR4	7/13/2019 11:57	0.12				SR12	7/13/2019 11:57	0.12			
SR4	7/13/2019 12:17	0.12				SR12	7/13/2019 12:17	0.12			
SR4	7/13/2019 12:37	0.10				SR12	7/13/2019 12:37	0.12			
SR4	7/13/2019 12:57	0.10				SR12	7/13/2019 12:57	0.14			
SR4	7/13/2019 13:17	0.10				SR12	7/13/2019 13:17	0.12			
SR4	7/13/2019 13:37	0.11				SR12	7/13/2019 13:37	0.13			
SR4	7/13/2019 13:57	0.11				SR12	7/13/2019 13:57	0.13			
SR4	7/13/2019 14:17	0.12				SR12	7/13/2019 14:17	0.12			
SR4	7/13/2019 14:37	0.10				SR12	7/13/2019 14:37	0.12			
SR4	7/13/2019 14:57	0.09				SR12	7/13/2019 14:57	0.12			
SR4	7/13/2019 15:17	0.11				SR12	7/13/2019 15:17	0.12			
SR4	7/13/2019 15:37	0.13				SR12	7/13/2019 15:37	0.13			
SR4	7/13/2019 15:57	0.13				SR12	7/13/2019 15:57	0.15			
SR4	7/13/2019 16:17	0.12				SR12	7/13/2019 16:17	0.14			
SR4	7/13/2019 16:37	0.14				SR12	7/13/2019 16:37	0.14			
SR4	7/13/2019 16:57	0.15				SR12	7/13/2019 16:57	0.16			
SR4	7/13/2019 17:17	0.13				SR12	7/13/2019 17:17	0.14			
SR4	7/13/2019 17:37	0.14				SR12	7/13/2019 17:37	0.16			
SR4	7/13/2019 17:57	0.14				SR12	7/13/2019 17:57	0.14			
SR4	7/13/2019 18:17	0.15				SR12	7/13/2019 18:17	0.14			
SR4	7/13/2019 18:37	0.12				SR12	7/13/2019 18:37	0.15			
SR4	7/13/2019 18:57	0.15				SR12	7/13/2019 18:57	0.14			
SR4	7/13/2019 19:17	0.13				SR12	7/13/2019 19:17	0.16			
SR4	7/13/2019 19:37	0.12				SR12	7/13/2019 19:37	0.18			
SR4	7/13/2019 19:57	0.13				SR12	7/13/2019 19:57	0.18			
SR4	7/13/2019 20:17	0.15				SR12	7/13/2019 20:17	0.17			
SR4	7/13/2019 20:37	0.15				SR12	7/13/2019 20:37	0.16			
SR4	7/13/2019 20:57	0.12				SR12	7/13/2019 20:57	0.17			
SR4	7/13/2019 21:17	0.14				SR12	7/13/2019 21:17	0.18			
SR4	7/13/2019 21:37	0.12				SR12	7/13/2019 21:37	0.16			
SR4	7/13/2019 21:57	0.14				SR12	7/13/2019 21:57	0.16			
SR4	7/13/2019 22:17	0.13				SR12	7/13/2019 22:17	0.16			
SR4	7/13/2019 22:37	0.13				SR12	7/13/2019 22:37	0.18			
SR4	7/13/2019 22:57	0.12				SR12	7/13/2019 22:57	0.16			
SR4	7/13/2019 23:17	0.15				SR12	7/13/2019 23:17	0.16			
SR4	7/13/2019 23:37	0.17				SR12	7/13/2019 23:37	0.17			
SR4	7/13/2019 23:57	0.17				SR12	7/13/2019 23:57	0.18			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/14/2019 0:17	0.18				SR12	7/14/2019 0:17	0.16			
SR4	7/14/2019 0:37	0.17				SR12	7/14/2019 0:37	0.16			
SR4	7/14/2019 0:57	0.18				SR12	7/14/2019 0:57	0.17			
SR4	7/14/2019 1:17	0.16				SR12	7/14/2019 1:17	0.18			
SR4	7/14/2019 1:37	0.18				SR12	7/14/2019 1:37	0.17			
SR4	7/14/2019 1:57	0.16				SR12	7/14/2019 1:57	0.17			
SR4	7/14/2019 2:17	0.16				SR12	7/14/2019 2:17	0.16			
SR4	7/14/2019 2:37	0.16				SR12	7/14/2019 2:37	0.17			
SR4	7/14/2019 2:57	0.17				SR12	7/14/2019 2:57	0.17			
SR4	7/14/2019 3:17	0.18				SR12	7/14/2019 3:17	0.17			
SR4	7/14/2019 3:37	0.16				SR12	7/14/2019 3:37	0.17			
SR4	7/14/2019 3:57	0.18				SR12	7/14/2019 3:57	0.18			
SR4	7/14/2019 4:17	0.16				SR12	7/14/2019 4:17	0.19			
SR4	7/14/2019 4:37	0.17				SR12	7/14/2019 4:37	0.18			
SR4	7/14/2019 4:57	0.18				SR12	7/14/2019 4:57	0.19			
SR4	7/14/2019 5:17	0.18				SR12	7/14/2019 5:17	0.19			
SR4	7/14/2019 5:37	0.18				SR12	7/14/2019 5:37	0.17			
SR4	7/14/2019 5:57	0.18				SR12	7/14/2019 5:57	0.18			
SR4						SR12					
SR4	7/14/2019 6:37	0.18				SR12	7/14/2019 6:37	0.19			
SR4	7/14/2019 6:57	0.18				SR12	7/14/2019 6:57	0.19			
SR4	7/14/2019 7:17	0.20				SR12	7/14/2019 7:17	0.19			
SR4	7/14/2019 7:37	0.18				SR12	7/14/2019 7:37	0.18			
SR4	7/14/2019 7:57	0.18				SR12	7/14/2019 7:57	0.18			
SR4	7/14/2019 8:17	0.20				SR12	7/14/2019 8:17	0.18			
SR4	7/14/2019 8:37	0.21				SR12	7/14/2019 8:37	0.19			
SR4	7/14/2019 8:57	0.21				SR12	7/14/2019 8:57	0.20			
SR4	7/14/2019 9:17	0.18				SR12	7/14/2019 9:17	0.19			
SR4	7/14/2019 9:37	0.18				SR12	7/14/2019 9:37	0.19			
SR4	7/14/2019 9:57	0.18				SR12	7/14/2019 9:57	0.21			
SR4	7/14/2019 10:17	0.18				SR12	7/14/2019 10:17	0.21			
SR4	7/14/2019 10:37	0.19				SR12	7/14/2019 10:37	0.20			
SR4	7/14/2019 10:57	0.20				SR12	7/14/2019 10:57	0.20			
SR4	7/14/2019 11:17	0.20				SR12	7/14/2019 11:17	0.20			
SR4	7/14/2019 11:37	0.21				SR12	7/14/2019 11:37	0.21			
SR4	7/14/2019 11:57	0.19				SR12	7/14/2019 11:57	0.19			
SR4	7/14/2019 12:17	0.19				SR12	7/14/2019 12:17	0.20			
SR4	7/14/2019 12:37	0.18				SR12	7/14/2019 12:37	0.19			
SR4	7/14/2019 12:57	0.20				SR12	7/14/2019 12:57	0.20			
SR4	7/14/2019 13:17	0.20				SR12	7/14/2019 13:17	0.20			
SR4	7/14/2019 13:37	0.20				SR12	7/14/2019 13:37	0.21			
SR4	7/14/2019 13:57	0.21				SR12	7/14/2019 13:57	0.19			
SR4	7/14/2019 14:17	0.22				SR12	7/14/2019 14:17	0.20			
SR4	7/14/2019 14:37	0.20				SR12	7/14/2019 14:37	0.19			
SR4	7/14/2019 14:57	0.22				SR12	7/14/2019 14:57	0.21			
SR4	7/14/2019 15:17	0.20				SR12	7/14/2019 15:17	0.20			
SR4	7/14/2019 15:37	0.22				SR12	7/14/2019 15:37	0.21			
SR4	7/14/2019 15:57	0.21				SR12	7/14/2019 15:57	0.20			
SR4	7/14/2019 16:17	0.21				SR12	7/14/2019 16:17	0.20			
SR4	7/14/2019 16:37	0.22				SR12	7/14/2019 16:37	0.19			
SR4	7/14/2019 16:57	0.20				SR12	7/14/2019 16:57	0.20			
SR4	7/14/2019 17:17	0.21				SR12	7/14/2019 17:17	0.20			
SR4	7/14/2019 17:37	0.20				SR12	7/14/2019 17:37	0.22			
SR4	7/14/2019 17:57	0.20				SR12	7/14/2019 17:57	0.20			
SR4	7/14/2019 18:17	0.21				SR12	7/14/2019 18:17	0.22			
SR4	7/14/2019 18:37	0.22				SR12	7/14/2019 18:37	0.21			
SR4	7/14/2019 18:57	0.20				SR12	7/14/2019 18:57	0.21			
SR4	7/14/2019 19:17	0.20				SR12	7/14/2019 19:17	0.22			
SR4	7/14/2019 19:37	0.20				SR12	7/14/2019 19:37	0.21			
SR4	7/14/2019 19:57	0.22				SR12	7/14/2019 19:57	0.20			
SR4	7/14/2019 20:17	0.20				SR12	7/14/2019 20:17	0.20			
SR4	7/14/2019 20:37	0.21				SR12	7/14/2019 20:37	0.22			
SR4	7/14/2019 20:57	0.20				SR12	7/14/2019 20:57	0.22			
SR4	7/14/2019 21:17	0.19				SR12	7/14/2019 21:17	0.22			
SR4	7/14/2019 21:37	0.19				SR12	7/14/2019 21:37	0.22			
SR4	7/14/2019 21:57	0.20				SR12	7/14/2019 21:57	0.22			
SR4	7/14/2019 22:17	0.21				SR12	7/14/2019 22:17	0.20			
SR4	7/14/2019 22:37	0.21				SR12	7/14/2019 22:37	0.21			
SR4	7/14/2019 22:57	0.21				SR12	7/14/2019 22:57	0.20			
SR4	7/14/2019 23:17	0.20				SR12	7/14/2019 23:17	0.20			
SR4	7/14/2019 23:37	0.21				SR12	7/14/2019 23:37	0.20			
SR4	7/14/2019 23:57	0.20				SR12	7/14/2019 23:57	0.21			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/15/2019 0:17	0.19				SR12	7/15/2019 0:17	0.20			
SR4	7/15/2019 0:37	0.20				SR12	7/15/2019 0:37	0.20			
SR4	7/15/2019 0:57	0.20				SR12	7/15/2019 0:57	0.22			
SR4	7/15/2019 1:17	0.21				SR12	7/15/2019 1:17	0.22			
SR4	7/15/2019 1:37	0.21				SR12	7/15/2019 1:37	0.22			
SR4	7/15/2019 1:57	0.20				SR12	7/15/2019 1:57	0.20			
SR4	7/15/2019 2:17	0.21				SR12	7/15/2019 2:17	0.19			
SR4	7/15/2019 2:37	0.20				SR12	7/15/2019 2:37	0.18			
SR4	7/15/2019 2:57	0.20				SR12	7/15/2019 2:57	0.18			
SR4	7/15/2019 3:17	0.19				SR12	7/15/2019 3:17	0.18			
SR4	7/15/2019 3:37	0.20				SR12	7/15/2019 3:37	0.18			
SR4	7/15/2019 3:57	0.20				SR12	7/15/2019 3:57	0.19			
SR4	7/15/2019 4:17	0.19				SR12	7/15/2019 4:17	0.20			
SR4	7/15/2019 4:37	0.20				SR12	7/15/2019 4:37	0.20			
SR4	7/15/2019 4:57	0.18				SR12	7/15/2019 4:57	0.19			
SR4	7/15/2019 5:17	0.19				SR12	7/15/2019 5:17	0.20			
SR4	7/15/2019 5:37	0.20				SR12	7/15/2019 5:37	0.20			
SR4	7/15/2019 5:57	0.20				SR12	7/15/2019 5:57	0.20			
SR4						SR12					
SR4	7/15/2019 6:37	0.18				SR12	7/15/2019 6:37	0.18			
SR4	7/15/2019 6:57	0.20				SR12	7/15/2019 6:57	0.18			
SR4	7/15/2019 7:17	0.20				SR12	7/15/2019 7:17	0.19			
SR4	7/15/2019 7:37	0.20				SR12	7/15/2019 7:37	0.19			
SR4	7/15/2019 7:57	0.18				SR12	7/15/2019 7:57	0.18			
SR4	7/15/2019 8:17	0.18				SR12	7/15/2019 8:17	0.19			
SR4	7/15/2019 8:37	0.18				SR12	7/15/2019 8:37	0.19			
SR4	7/15/2019 8:57	0.20				SR12	7/15/2019 8:57	0.17			
SR4	7/15/2019 9:17	0.20				SR12	7/15/2019 9:17	0.19			
SR4	7/15/2019 9:37	0.19				SR12	7/15/2019 9:37	0.17			
SR4	7/15/2019 9:57	0.19				SR12	7/15/2019 9:57	0.17			
SR4	7/15/2019 10:17	0.16				SR12					
SR4	7/15/2019 10:37	0.16				SR12					
SR4	7/15/2019 10:57	0.16				SR12					
SR4	7/15/2019 11:17	0.16				SR12					
SR4	7/15/2019 11:37	0.16				SR12					
SR4	7/15/2019 11:57	0.18				SR12	7/15/2019 11:57	0.19			
SR4						SR12	7/15/2019 12:17	0.18			
SR4						SR12	7/15/2019 12:37	0.17			
SR4						SR12	7/15/2019 12:57	0.18			
SR4						SR12	7/15/2019 13:17	0.19			
SR4						SR12	7/15/2019 13:37	0.19			
SR4	7/15/2019 13:57	0.17				SR12	7/15/2019 13:57	0.17			
SR4	7/15/2019 14:17	0.17				SR12	7/15/2019 14:17	0.17			
SR4	7/15/2019 14:37	0.16				SR12	7/15/2019 14:37	0.16			
SR4	7/15/2019 14:57	0.17				SR12	7/15/2019 14:57	0.16			
SR4	7/15/2019 15:17	0.16				SR12	7/15/2019 15:17	0.16			
SR4	7/15/2019 15:37	0.19				SR12	7/15/2019 15:37	0.17			
SR4	7/15/2019 15:57	0.17				SR12	7/15/2019 15:57	0.16			
SR4	7/15/2019 16:17	0.16				SR12	7/15/2019 16:17	0.17			
SR4	7/15/2019 16:37	0.16				SR12	7/15/2019 16:37	0.16			
SR4	7/15/2019 16:57	0.15				SR12	7/15/2019 16:57	0.16			
SR4	7/15/2019 17:17	0.16				SR12	7/15/2019 17:17	0.15			
SR4	7/15/2019 17:37	0.16				SR12	7/15/2019 17:37	0.15			
SR4	7/15/2019 17:57	0.16				SR12	7/15/2019 17:57	0.17			
SR4	7/15/2019 18:17	0.16				SR12	7/15/2019 18:17	0.17			
SR4	7/15/2019 18:37	0.14				SR12	7/15/2019 18:37	0.15			
SR4	7/15/2019 18:57	0.15				SR12	7/15/2019 18:57	0.15			
SR4	7/15/2019 19:17	0.16				SR12	7/15/2019 19:17	0.15			
SR4	7/15/2019 19:37	0.14				SR12	7/15/2019 19:37	0.16			
SR4	7/15/2019 19:57	0.16				SR12	7/15/2019 19:57	0.16			
SR4	7/15/2019 20:17	0.15				SR12	7/15/2019 20:17	0.15			
SR4	7/15/2019 20:37	0.16				SR12	7/15/2019 20:37	0.16			
SR4	7/15/2019 20:57	0.16				SR12	7/15/2019 20:57	0.15			
SR4	7/15/2019 21:17	0.15				SR12	7/15/2019 21:17	0.14			
SR4	7/15/2019 21:37	0.15				SR12	7/15/2019 21:37	0.15			
SR4	7/15/2019 21:57	0.14				SR12	7/15/2019 21:57	0.15			
SR4	7/15/2019 22:17	0.16				SR12	7/15/2019 22:17	0.16			
SR4	7/15/2019 22:37	0.16				SR12	7/15/2019 22:37	0.14			
SR4	7/15/2019 22:57	0.14				SR12	7/15/2019 22:57	0.16			
SR4	7/15/2019 23:17	0.14				SR12	7/15/2019 23:17	0.16			
SR4	7/15/2019 23:37	0.14				SR12	7/15/2019 23:37	0.14			
SR4	7/15/2019 23:57	0.13				SR12	7/15/2019 23:57	0.14			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH<sub>3</sub>-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
 SR4 monitoring station was under maintenance during 12:16-13:26.  
 SR12 monitoring station was under maintenance during 10:06-11:21.  
 SR13 monitoring station was under maintenance during 15:10-15:40.









24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/16/2019 0:17	0.12				SR12	7/16/2019 0:17	0.15			
SR4	7/16/2019 0:37	0.11				SR12	7/16/2019 0:37	0.15			
SR4	7/16/2019 0:57	0.13				SR12	7/16/2019 0:57	0.15			
SR4	7/16/2019 1:17	0.12				SR12	7/16/2019 1:17	0.16			
SR4	7/16/2019 1:37	0.11				SR12	7/16/2019 1:37	0.14			
SR4	7/16/2019 1:57	0.12				SR12	7/16/2019 1:57	0.15			
SR4	7/16/2019 2:17	0.11				SR12	7/16/2019 2:17	0.14			
SR4	7/16/2019 2:37	0.13				SR12	7/16/2019 2:37	0.16			
SR4	7/16/2019 2:57	0.13				SR12	7/16/2019 2:57	0.14			
SR4	7/16/2019 3:17	0.13				SR12	7/16/2019 3:17	0.14			
SR4	7/16/2019 3:37	0.12				SR12	7/16/2019 3:37	0.15			
SR4	7/16/2019 3:57	0.13				SR12	7/16/2019 3:57	0.14			
SR4	7/16/2019 4:17	0.13				SR12	7/16/2019 4:17	0.14			
SR4	7/16/2019 4:37	0.10				SR12	7/16/2019 4:37	0.14			
SR4	7/16/2019 4:57	0.12				SR12	7/16/2019 4:57	0.14			
SR4	7/16/2019 5:17	0.12				SR12	7/16/2019 5:17	0.12			
SR4	7/16/2019 5:37	0.12				SR12	7/16/2019 5:37	0.14			
SR4	7/16/2019 5:57	0.10				SR12	7/16/2019 5:57	0.11			
SR4						SR12					
SR4	7/16/2019 6:37	0.10				SR12	7/16/2019 6:37	0.11			
SR4	7/16/2019 6:57	0.09				SR12	7/16/2019 6:57	0.12			
SR4	7/16/2019 7:17	0.09				SR12	7/16/2019 7:17	0.11			
SR4	7/16/2019 7:37	0.11				SR12	7/16/2019 7:37	0.13			
SR4	7/16/2019 7:57	0.10				SR12	7/16/2019 7:57	0.12			
SR4	7/16/2019 8:17	0.11				SR12	7/16/2019 8:17	0.11			
SR4	7/16/2019 8:37	0.09				SR12	7/16/2019 8:37	0.13			
SR4	7/16/2019 8:57	0.10				SR12	7/16/2019 8:57	0.12			
SR4	7/16/2019 9:17	0.11				SR12	7/16/2019 9:17	0.11			
SR4	7/16/2019 9:37	0.10				SR12	7/16/2019 9:37	0.12			
SR4	7/16/2019 9:57	0.11				SR12	7/16/2019 9:57	0.13			
SR4	7/16/2019 10:17	0.12				SR12	7/16/2019 10:17	0.10			
SR4	7/16/2019 10:37	0.14				SR12	7/16/2019 10:37	0.11			
SR4	7/16/2019 10:57	0.13				SR12	7/16/2019 10:57	0.13			
SR4	7/16/2019 11:17	0.13				SR12	7/16/2019 11:17	0.13			
SR4	7/16/2019 11:37	0.14				SR12	7/16/2019 11:37	0.13			
SR4	7/16/2019 11:57	0.12				SR12	7/16/2019 11:57	0.14			
SR4	7/16/2019 12:17	0.14				SR12	7/16/2019 12:17	0.13			
SR4	7/16/2019 12:37	0.12				SR12	7/16/2019 12:37	0.14			
SR4	7/16/2019 12:57	0.14				SR12	7/16/2019 12:57	0.14			
SR4	7/16/2019 13:17	0.14				SR12	7/16/2019 13:17	0.12			
SR4	7/16/2019 13:37	0.14				SR12	7/16/2019 13:37	0.12			
SR4	7/16/2019 13:57	0.14				SR12	7/16/2019 13:57	0.13			
SR4	7/16/2019 14:17	0.14				SR12	7/16/2019 14:17	0.14			
SR4	7/16/2019 14:37	0.14				SR12	7/16/2019 14:37	0.15			
SR4	7/16/2019 14:57	0.13				SR12	7/16/2019 14:57	0.14			
SR4	7/16/2019 15:17	0.12				SR12	7/16/2019 15:17	0.14			
SR4	7/16/2019 15:37	0.13				SR12	7/16/2019 15:37	0.14			
SR4	7/16/2019 15:57	0.14				SR12	7/16/2019 15:57	0.14			
SR4	7/16/2019 16:17	0.13				SR12	7/16/2019 16:17	0.16			
SR4	7/16/2019 16:37	0.15				SR12	7/16/2019 16:37	0.15			
SR4	7/16/2019 16:57	0.14				SR12	7/16/2019 16:57	0.15			
SR4	7/16/2019 17:17	0.15				SR12	7/16/2019 17:17	0.15			
SR4	7/16/2019 17:37	0.13				SR12	7/16/2019 17:37	0.16			
SR4	7/16/2019 17:57	0.15				SR12	7/16/2019 17:57	0.16			
SR4	7/16/2019 18:17	0.13				SR12	7/16/2019 18:17	0.16			
SR4	7/16/2019 18:37	0.14				SR12	7/16/2019 18:37	0.17			
SR4	7/16/2019 18:57	0.16				SR12	7/16/2019 18:57	0.16			
SR4	7/16/2019 19:17	0.15				SR12	7/16/2019 19:17	0.16			
SR4	7/16/2019 19:37	0.14				SR12	7/16/2019 19:37	0.16			
SR4	7/16/2019 19:57	0.15				SR12	7/16/2019 19:57	0.16			
SR4	7/16/2019 20:17	0.16				SR12	7/16/2019 20:17	0.17			
SR4	7/16/2019 20:37	0.14				SR12	7/16/2019 20:37	0.17			
SR4	7/16/2019 20:57	0.14				SR12	7/16/2019 20:57	0.17			
SR4	7/16/2019 21:17	0.16				SR12	7/16/2019 21:17	0.16			
SR4	7/16/2019 21:37	0.15				SR12	7/16/2019 21:37	0.18			
SR4	7/16/2019 21:57	0.16				SR12	7/16/2019 21:57	0.19			
SR4	7/16/2019 22:17	0.16				SR12	7/16/2019 22:17	0.18			
SR4	7/16/2019 22:37	0.16				SR12	7/16/2019 22:37	0.20			
SR4	7/16/2019 22:57	0.14				SR12	7/16/2019 22:57	0.18			
SR4	7/16/2019 23:17	0.15				SR12	7/16/2019 23:17	0.18			
SR4	7/16/2019 23:37	0.17				SR12	7/16/2019 23:37	0.20			
SR4	7/16/2019 23:57	0.15				SR12	7/16/2019 23:57	0.20			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
 SR5 monitoring station was under maintenance during 8:50-9:15.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/17/2019 0:17	0.15				SR12	7/17/2019 0:17	0.20			
SR4	7/17/2019 0:37	0.15				SR12	7/17/2019 0:37	0.20			
SR4	7/17/2019 0:57	0.17				SR12	7/17/2019 0:57	0.22			
SR4	7/17/2019 1:17	0.17				SR12	7/17/2019 1:17	0.22			
SR4	7/17/2019 1:37	0.16				SR12	7/17/2019 1:37	0.21			
SR4	7/17/2019 1:57	0.15				SR12	7/17/2019 1:57	0.22			
SR4	7/17/2019 2:17	0.16				SR12	7/17/2019 2:17	0.20			
SR4	7/17/2019 2:37	0.15				SR12	7/17/2019 2:37	0.21			
SR4	7/17/2019 2:57	0.15				SR12	7/17/2019 2:57	0.20			
SR4	7/17/2019 3:17	0.16				SR12	7/17/2019 3:17	0.20			
SR4	7/17/2019 3:37	0.18				SR12	7/17/2019 3:37	0.21			
SR4	7/17/2019 3:57	0.16				SR12	7/17/2019 3:57	0.22			
SR4	7/17/2019 4:17	0.18				SR12	7/17/2019 4:17	0.24			
SR4	7/17/2019 4:37	0.18				SR12	7/17/2019 4:37	0.23			
SR4	7/17/2019 4:57	0.17				SR12	7/17/2019 4:57	0.23			
SR4	7/17/2019 5:17	0.16				SR12	7/17/2019 5:17	0.22			
SR4	7/17/2019 5:37	0.16				SR12	7/17/2019 5:37	0.24			
SR4	7/17/2019 5:57	0.16				SR12	7/17/2019 5:57	0.22			
SR4						SR12					
SR4	7/17/2019 6:37	0.16				SR12	7/17/2019 6:37	0.24			
SR4	7/17/2019 6:57	0.17				SR12	7/17/2019 6:57	0.22			
SR4	7/17/2019 7:17	0.17				SR12	7/17/2019 7:17	0.24			
SR4	7/17/2019 7:37	0.17				SR12	7/17/2019 7:37	0.23			
SR4	7/17/2019 7:57	0.17				SR12	7/17/2019 7:57	0.22			
SR4	7/17/2019 8:17	0.18				SR12	7/17/2019 8:17	0.22			
SR4	7/17/2019 8:37	0.18				SR12	7/17/2019 8:37	0.23			
SR4	7/17/2019 8:57	0.17				SR12	7/17/2019 8:57	0.22			
SR4	7/17/2019 9:17	0.19				SR12	7/17/2019 9:17	0.20			
SR4	7/17/2019 9:37	0.18				SR12	7/17/2019 9:37	0.22			
SR4	7/17/2019 9:57	0.17				SR12					
SR4	7/17/2019 10:17	0.19				SR12					
SR4	7/17/2019 10:37	0.17				SR12					
SR4	7/17/2019 10:57	0.19				SR12					
SR4	7/17/2019 11:17	0.18				SR12					
SR4	7/17/2019 11:37	0.19				SR12	7/17/2019 11:37	0.21			
SR4	7/17/2019 11:57	0.17				SR12	7/17/2019 11:57	0.22			
SR4						SR12	7/17/2019 12:17	0.20			
SR4						SR12	7/17/2019 12:37	0.19			
SR4						SR12	7/17/2019 12:57	0.19			
SR4						SR12	7/17/2019 13:17	0.19			
SR4						SR12	7/17/2019 13:37	0.19			
SR4	7/17/2019 13:57	0.20				SR12	7/17/2019 13:57	0.19			
SR4	7/17/2019 14:17	0.19				SR12	7/17/2019 14:17	0.19			
SR4	7/17/2019 14:37	0.20				SR12	7/17/2019 14:37	0.20			
SR4	7/17/2019 14:57	0.21				SR12	7/17/2019 14:57	0.19			
SR4	7/17/2019 15:17	0.19				SR12	7/17/2019 15:17	0.19			
SR4	7/17/2019 15:37	0.20				SR12	7/17/2019 15:37	0.20			
SR4	7/17/2019 15:57	0.20				SR12	7/17/2019 15:57	0.19			
SR4	7/17/2019 16:17	0.19				SR12	7/17/2019 16:17	0.20			
SR4	7/17/2019 16:37	0.21				SR12	7/17/2019 16:37	0.18			
SR4	7/17/2019 16:57	0.20				SR12	7/17/2019 16:57	0.16			
SR4	7/17/2019 17:17	0.21				SR12	7/17/2019 17:17	0.18			
SR4	7/17/2019 17:37	0.19				SR12	7/17/2019 17:37	0.17			
SR4	7/17/2019 17:57	0.20				SR12	7/17/2019 17:57	0.16			
SR4	7/17/2019 18:17	0.20				SR12	7/17/2019 18:17	0.16			
SR4	7/17/2019 18:37	0.20				SR12	7/17/2019 18:37	0.16			
SR4	7/17/2019 18:57	0.19				SR12	7/17/2019 18:57	0.17			
SR4	7/17/2019 19:17	0.18				SR12	7/17/2019 19:17	0.17			
SR4	7/17/2019 19:37	0.19				SR12	7/17/2019 19:37	0.18			
SR4	7/17/2019 19:57	0.18				SR12	7/17/2019 19:57	0.16			
SR4	7/17/2019 20:17	0.17				SR12	7/17/2019 20:17	0.16			
SR4	7/17/2019 20:37	0.19				SR12	7/17/2019 20:37	0.18			
SR4	7/17/2019 20:57	0.19				SR12	7/17/2019 20:57	0.18			
SR4	7/17/2019 21:17	0.18				SR12	7/17/2019 21:17	0.16			
SR4	7/17/2019 21:37	0.17				SR12	7/17/2019 21:37	0.18			
SR4	7/17/2019 21:57	0.19				SR12	7/17/2019 21:57	0.16			
SR4	7/17/2019 22:17	0.17				SR12	7/17/2019 22:17	0.18			
SR4	7/17/2019 22:37	0.18				SR12	7/17/2019 22:37	0.18			
SR4	7/17/2019 22:57	0.19				SR12	7/17/2019 22:57	0.17			
SR4	7/17/2019 23:17	0.18				SR12	7/17/2019 23:17	0.17			
SR4	7/17/2019 23:37	0.17				SR12	7/17/2019 23:37	0.17			
SR4	7/17/2019 23:57	0.15				SR12	7/17/2019 23:57	0.18			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH<sub>3</sub>-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
 SR4 monitoring station was under maintenance during 12:06-13:21.  
 SR12 monitoring station was under maintenance during 9:56-11:06.  
 SR13 monitoring station was under maintenance during 15:20-15:45.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/18/2019 0:17	0.15				SR12	7/18/2019 0:17	0.18			
SR4	7/18/2019 0:37	0.16				SR12	7/18/2019 0:37	0.18			
SR4	7/18/2019 0:57	0.16				SR12	7/18/2019 0:57	0.17			
SR4	7/18/2019 1:17	0.17				SR12	7/18/2019 1:17	0.19			
SR4	7/18/2019 1:37	0.15				SR12	7/18/2019 1:37	0.17			
SR4	7/18/2019 1:57	0.15				SR12	7/18/2019 1:57	0.17			
SR4	7/18/2019 2:17	0.16				SR12	7/18/2019 2:17	0.18			
SR4	7/18/2019 2:37	0.17				SR12	7/18/2019 2:37	0.19			
SR4	7/18/2019 2:57	0.17				SR12	7/18/2019 2:57	0.19			
SR4	7/18/2019 3:17	0.16				SR12	7/18/2019 3:17	0.19			
SR4	7/18/2019 3:37	0.17				SR12	7/18/2019 3:37	0.20			
SR4	7/18/2019 3:57	0.15				SR12	7/18/2019 3:57	0.20			
SR4	7/18/2019 4:17	0.15				SR12	7/18/2019 4:17	0.19			
SR4	7/18/2019 4:37	0.14				SR12	7/18/2019 4:37	0.21			
SR4	7/18/2019 4:57	0.16				SR12	7/18/2019 4:57	0.20			
SR4	7/18/2019 5:17	0.14				SR12	7/18/2019 5:17	0.18			
SR4	7/18/2019 5:37	0.16				SR12	7/18/2019 5:37	0.21			
SR4	7/18/2019 5:57	0.14				SR12	7/18/2019 5:57	0.19			
SR4						SR12					
SR4	7/18/2019 6:37	0.16				SR12	7/18/2019 6:37	0.19			
SR4	7/18/2019 6:57	0.15				SR12	7/18/2019 6:57	0.20			
SR4	7/18/2019 7:17	0.14				SR12	7/18/2019 7:17	0.17			
SR4	7/18/2019 7:37	0.13				SR12	7/18/2019 7:37	0.18			
SR4	7/18/2019 7:57	0.15				SR12	7/18/2019 7:57	0.19			
SR4	7/18/2019 8:17	0.15				SR12	7/18/2019 8:17	0.19			
SR4	7/18/2019 8:37	0.16				SR12	7/18/2019 8:37	0.18			
SR4	7/18/2019 8:57	0.14				SR12	7/18/2019 8:57	0.20			
SR4	7/18/2019 9:17	0.16				SR12	7/18/2019 9:17	0.20			
SR4	7/18/2019 9:37	0.15				SR12	7/18/2019 9:37	0.21			
SR4	7/18/2019 9:57	0.16				SR12	7/18/2019 9:57	0.19			
SR4	7/18/2019 10:17	0.16				SR12	7/18/2019 10:17	0.20			
SR4	7/18/2019 10:37	0.14				SR12	7/18/2019 10:37	0.21			
SR4	7/18/2019 10:57	0.15				SR12	7/18/2019 10:57	0.20			
SR4	7/18/2019 11:17	0.15				SR12	7/18/2019 11:17	0.17			
SR4	7/18/2019 11:37	0.16				SR12	7/18/2019 11:37	0.20			
SR4	7/18/2019 11:57	0.17				SR12	7/18/2019 11:57	0.21			
SR4	7/18/2019 12:17	0.17				SR12	7/18/2019 12:17	0.19			
SR4	7/18/2019 12:37	0.16				SR12	7/18/2019 12:37	0.21			
SR4	7/18/2019 12:57	0.16				SR12	7/18/2019 12:57	0.23			
SR4	7/18/2019 13:17	0.16				SR12	7/18/2019 13:17	0.22			
SR4	7/18/2019 13:37	0.15				SR12	7/18/2019 13:37	0.24			
SR4	7/18/2019 13:57	0.15				SR12	7/18/2019 13:57	0.24			
SR4	7/18/2019 14:17	0.15				SR12	7/18/2019 14:17	0.22			
SR4	7/18/2019 14:37	0.15				SR12	7/18/2019 14:37	0.23			
SR4	7/18/2019 14:57	0.16				SR12	7/18/2019 14:57	0.25			
SR4	7/18/2019 15:17	0.17				SR12	7/18/2019 15:17	0.25			
SR4	7/18/2019 15:37	0.15				SR12	7/18/2019 15:37	0.25			
SR4	7/18/2019 15:57	0.17				SR12	7/18/2019 15:57	0.27			
SR4	7/18/2019 16:17	0.15				SR12	7/18/2019 16:17	0.25			
SR4	7/18/2019 16:37	0.17				SR12	7/18/2019 16:37	0.27			
SR4	7/18/2019 16:57	0.17				SR12	7/18/2019 16:57	0.25			
SR4	7/18/2019 17:17	0.18				SR12	7/18/2019 17:17	0.25			
SR4	7/18/2019 17:37	0.19				SR12	7/18/2019 17:37	0.28			
SR4	7/18/2019 17:57	0.18				SR12	7/18/2019 17:57	0.31			
SR4	7/18/2019 18:17	0.18				SR12	7/18/2019 18:17	0.29			
SR4	7/18/2019 18:37	0.18				SR12	7/18/2019 18:37	0.30			
SR4	7/18/2019 18:57	0.19				SR12	7/18/2019 18:57	0.30			
SR4	7/18/2019 19:17	0.17				SR12	7/18/2019 19:17	0.30			
SR4	7/18/2019 19:37	0.17				SR12	7/18/2019 19:37	0.30			
SR4	7/18/2019 19:57	0.17				SR12	7/18/2019 19:57	0.31			
SR4	7/18/2019 20:17	0.17				SR12	7/18/2019 20:17	0.31			
SR4	7/18/2019 20:37	0.18				SR12	7/18/2019 20:37	0.31			
SR4	7/18/2019 20:57	0.19				SR12	7/18/2019 20:57	0.31			
SR4	7/18/2019 21:17	0.18				SR12	7/18/2019 21:17	0.31			
SR4	7/18/2019 21:37	0.19				SR12	7/18/2019 21:37	0.31			
SR4	7/18/2019 21:57	0.17				SR12	7/18/2019 21:57	0.32			
SR4	7/18/2019 22:17	0.18				SR12	7/18/2019 22:17	0.32			
SR4	7/18/2019 22:37	0.20				SR12	7/18/2019 22:37	0.32			
SR4	7/18/2019 22:57	0.22				SR12	7/18/2019 22:57	0.32			
SR4	7/18/2019 23:17	0.21				SR12	7/18/2019 23:17	0.33			
SR4	7/18/2019 23:37	0.21				SR12	7/18/2019 23:37	0.33			
SR4	7/18/2019 23:57	0.25				SR12	7/18/2019 23:57	0.33			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
 SR5 monitoring station was under maintenance during 9:05-9:30.









24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/19/2019 0:17	0.21				SR12	7/19/2019 0:17	0.32			
SR4	7/19/2019 0:37	0.24				SR12	7/19/2019 0:37	0.33			
SR4	7/19/2019 0:57	0.24				SR12	7/19/2019 0:57	0.34			
SR4	7/19/2019 1:17	0.25				SR12	7/19/2019 1:17	0.34			
SR4	7/19/2019 1:37	0.23				SR12	7/19/2019 1:37	0.34			
SR4	7/19/2019 1:57	0.23				SR12	7/19/2019 1:57	0.36			
SR4	7/19/2019 2:17	0.25				SR12	7/19/2019 2:17	0.35			
SR4	7/19/2019 2:37	0.21				SR12	7/19/2019 2:37	0.35			
SR4	7/19/2019 2:57	0.25				SR12	7/19/2019 2:57	0.35			
SR4	7/19/2019 3:17	0.23				SR12	7/19/2019 3:17	0.33			
SR4	7/19/2019 3:37	0.24				SR12	7/19/2019 3:37	0.34			
SR4	7/19/2019 3:57	0.23				SR12	7/19/2019 3:57	0.36			
SR4	7/19/2019 4:17	0.23				SR12	7/19/2019 4:17	0.36			
SR4	7/19/2019 4:37	0.21				SR12	7/19/2019 4:37	0.39			
SR4	7/19/2019 4:57	0.24				SR12	7/19/2019 4:57	0.38			
SR4	7/19/2019 5:17	0.27				SR12	7/19/2019 5:17	0.38			
SR4	7/19/2019 5:37	0.26				SR12	7/19/2019 5:37	0.39			
SR4	7/19/2019 5:57	0.26				SR12	7/19/2019 5:57	0.41			
SR4						SR12					
SR4	7/19/2019 6:37	0.26				SR12	7/19/2019 6:37	0.38			
SR4	7/19/2019 6:57	0.30				SR12	7/19/2019 6:57	0.39			
SR4	7/19/2019 7:17	0.26				SR12	7/19/2019 7:17	0.41			
SR4	7/19/2019 7:37	0.29				SR12	7/19/2019 7:37	0.40			
SR4	7/19/2019 7:57	0.27				SR12	7/19/2019 7:57	0.42			
SR4	7/19/2019 8:17	0.30				SR12	7/19/2019 8:17	0.40			
SR4	7/19/2019 8:37	0.30				SR12	7/19/2019 8:37	0.42			
SR4	7/19/2019 8:57	0.27				SR12	7/19/2019 8:57	0.41			
SR4	7/19/2019 9:17	0.28				SR12	7/19/2019 9:17	0.40			
SR4	7/19/2019 9:37	0.26				SR12	7/19/2019 9:37	0.42			
SR4	7/19/2019 9:57	0.27				SR12	7/19/2019 9:57	0.45			
SR4	7/19/2019 10:17	0.28				SR12	7/19/2019 10:17	0.47			
SR4	7/19/2019 10:37	0.33				SR12	7/19/2019 10:37	0.50			
SR4	7/19/2019 10:57	0.34				SR12	7/19/2019 10:57	0.47			
SR4	7/19/2019 11:17	0.32				SR12	7/19/2019 11:17	0.46			
SR4	7/19/2019 11:37	0.32				SR12	7/19/2019 11:37	0.49			
SR4	7/19/2019 11:57	0.34				SR12	7/19/2019 11:57	0.47			
SR4	7/19/2019 12:17	0.30				SR12	7/19/2019 12:17	0.50			
SR4	7/19/2019 12:37	0.32				SR12	7/19/2019 12:37	0.49			
SR4	7/19/2019 12:57	0.31				SR12	7/19/2019 12:57	0.50			
SR4	7/19/2019 13:17	0.31				SR12	7/19/2019 13:17	0.49			
SR4	7/19/2019 13:37	0.34				SR12	7/19/2019 13:37	0.47			
SR4	7/19/2019 13:57	0.33				SR12	7/19/2019 13:57	0.46			
SR4	7/19/2019 14:17	0.31				SR12	7/19/2019 14:17	0.47			
SR4	7/19/2019 14:37	0.32				SR12	7/19/2019 14:37	0.50			
SR4	7/19/2019 14:57	0.33				SR12	7/19/2019 14:57	0.53			
SR4	7/19/2019 15:17	0.32				SR12	7/19/2019 15:17	0.54			
SR4	7/19/2019 15:37	0.35				SR12	7/19/2019 15:37	0.53			
SR4	7/19/2019 15:57	0.37				SR12	7/19/2019 15:57	0.54			
SR4	7/19/2019 16:17	0.37				SR12	7/19/2019 16:17	0.53			
SR4	7/19/2019 16:37	0.40				SR12	7/19/2019 16:37	0.53			
SR4	7/19/2019 16:57	0.39				SR12	7/19/2019 16:57	0.52			
SR4	7/19/2019 17:17	0.40				SR12	7/19/2019 17:17	0.54			
SR4	7/19/2019 17:37	0.39				SR12	7/19/2019 17:37	0.57			
SR4	7/19/2019 17:57	0.39				SR12	7/19/2019 17:57	0.57			
SR4	7/19/2019 18:17	0.40				SR12	7/19/2019 18:17	0.58			
SR4	7/19/2019 18:37	0.37				SR12	7/19/2019 18:37	0.61			
SR4	7/19/2019 18:57	0.37				SR12	7/19/2019 18:57	0.59			
SR4	7/19/2019 19:17	0.37				SR12	7/19/2019 19:17	0.59			
SR4	7/19/2019 19:37	0.40				SR12	7/19/2019 19:37	0.59			
SR4	7/19/2019 19:57	0.39				SR12	7/19/2019 19:57	0.59			
SR4	7/19/2019 20:17	0.37				SR12	7/19/2019 20:17	0.60			
SR4	7/19/2019 20:37	0.38				SR12	7/19/2019 20:37	0.59			
SR4	7/19/2019 20:57	0.37				SR12	7/19/2019 20:57	0.61			
SR4	7/19/2019 21:17	0.37				SR12	7/19/2019 21:17	0.60			
SR4	7/19/2019 21:37	0.40				SR12	7/19/2019 21:37	0.60			
SR4	7/19/2019 21:57	0.40				SR12	7/19/2019 21:57	0.61			
SR4	7/19/2019 22:17	0.41				SR12	7/19/2019 22:17	0.62			
SR4	7/19/2019 22:37	0.41				SR12	7/19/2019 22:37	0.62			
SR4	7/19/2019 22:57	0.42				SR12	7/19/2019 22:57	0.64			
SR4	7/19/2019 23:17	0.43				SR12	7/19/2019 23:17	0.63			
SR4	7/19/2019 23:37	0.43				SR12	7/19/2019 23:37	0.64			
SR4	7/19/2019 23:57	0.42				SR12	7/19/2019 23:57	0.63			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.











24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/20/2019 0:17	0.41				SR12	7/20/2019 0:17	0.64			
SR4	7/20/2019 0:37	0.42				SR12	7/20/2019 0:37	0.63			
SR4	7/20/2019 0:57	0.44				SR12	7/20/2019 0:57	0.64			
SR4	7/20/2019 1:17	0.44				SR12	7/20/2019 1:17	0.64			
SR4	7/20/2019 1:37	0.42				SR12	7/20/2019 1:37	0.63			
SR4	7/20/2019 1:57	0.41				SR12	7/20/2019 1:57	0.64			
SR4	7/20/2019 2:17	0.42				SR12	7/20/2019 2:17	0.64			
SR4	7/20/2019 2:37	0.44				SR12	7/20/2019 2:37	0.63			
SR4	7/20/2019 2:57	0.47				SR12	7/20/2019 2:57	0.64			
SR4	7/20/2019 3:17	0.47				SR12	7/20/2019 3:17	0.64			
SR4	7/20/2019 3:37	0.51				SR12	7/20/2019 3:37	0.64			
SR4	7/20/2019 3:57	0.48				SR12	7/20/2019 3:57	0.64			
SR4	7/20/2019 4:17	0.48				SR12	7/20/2019 4:17	0.64			
SR4	7/20/2019 4:37	0.51				SR12	7/20/2019 4:37	0.64			
SR4	7/20/2019 4:57	0.51				SR12	7/20/2019 4:57	0.64			
SR4	7/20/2019 5:17	0.50				SR12	7/20/2019 5:17	0.64			
SR4	7/20/2019 5:37	0.51				SR12	7/20/2019 5:37	0.66			
SR4	7/20/2019 5:57	0.52				SR12	7/20/2019 5:57	0.70			
SR4						SR12					
SR4	7/20/2019 6:37	0.54				SR12	7/20/2019 6:37	0.71			
SR4	7/20/2019 6:57	0.53				SR12	7/20/2019 6:57	0.68			
SR4	7/20/2019 7:17	0.55				SR12	7/20/2019 7:17	0.70			
SR4	7/20/2019 7:37	0.56				SR12	7/20/2019 7:37	0.68			
SR4	7/20/2019 7:57	0.56				SR12	7/20/2019 7:57	0.69			
SR4	7/20/2019 8:17	0.59				SR12	7/20/2019 8:17	0.69			
SR4	7/20/2019 8:37	0.64				SR12	7/20/2019 8:37	0.75			
SR4	7/20/2019 8:57	0.66				SR12	7/20/2019 8:57	0.76			
SR4	7/20/2019 9:17	0.67				SR12	7/20/2019 9:17	0.76			
SR4	7/20/2019 9:37	0.68				SR12	7/20/2019 9:37	0.79			
SR4	7/20/2019 9:57	0.67				SR12	7/20/2019 9:57	0.78			
SR4	7/20/2019 10:17	0.70				SR12	7/20/2019 10:17	0.76			
SR4	7/20/2019 10:37	0.67				SR12	7/20/2019 10:37	0.78			
SR4	7/20/2019 10:57	0.68				SR12	7/20/2019 10:57	0.79			
SR4	7/20/2019 11:17	0.67				SR12	7/20/2019 11:17	0.82			
SR4	7/20/2019 11:37	0.67				SR12	7/20/2019 11:37	0.84			
SR4	7/20/2019 11:57	0.70				SR12	7/20/2019 11:57	0.81			
SR4	7/20/2019 12:17	0.71				SR12	7/20/2019 12:17	0.82			
SR4	7/20/2019 12:37	0.75				SR12	7/20/2019 12:37	0.88			
SR4	7/20/2019 12:57	0.68				SR12	7/20/2019 12:57	0.85			
SR4	7/20/2019 13:17	0.67				SR12	7/20/2019 13:17	0.81			
SR4	7/20/2019 13:37	0.69				SR12	7/20/2019 13:37	0.80			
SR4	7/20/2019 13:57	0.70				SR12	7/20/2019 13:57	0.80			
SR4	7/20/2019 14:17	0.67				SR12	7/20/2019 14:17	0.76			
SR4	7/20/2019 14:37	0.70				SR12	7/20/2019 14:37	0.79			
SR4	7/20/2019 14:57	0.68				SR12	7/20/2019 14:57	0.80			
SR4	7/20/2019 15:17	0.66				SR12	7/20/2019 15:17	0.78			
SR4	7/20/2019 15:37	0.59				SR12	7/20/2019 15:37	0.77			
SR4	7/20/2019 15:57	0.55				SR12	7/20/2019 15:57	0.76			
SR4	7/20/2019 16:17	0.53				SR12	7/20/2019 16:17	0.78			
SR4	7/20/2019 16:37	0.52				SR12	7/20/2019 16:37	0.77			
SR4	7/20/2019 16:57	0.54				SR12	7/20/2019 16:57	0.76			
SR4	7/20/2019 17:17	0.55				SR12	7/20/2019 17:17	0.73			
SR4	7/20/2019 17:37	0.53				SR12	7/20/2019 17:37	0.71			
SR4	7/20/2019 17:57	0.55				SR12	7/20/2019 17:57	0.73			
SR4	7/20/2019 18:17	0.55				SR12	7/20/2019 18:17	0.71			
SR4	7/20/2019 18:37	0.55				SR12	7/20/2019 18:37	0.70			
SR4	7/20/2019 18:57	0.55				SR12	7/20/2019 18:57	0.67			
SR4	7/20/2019 19:17	0.52				SR12	7/20/2019 19:17	0.66			
SR4	7/20/2019 19:37	0.52				SR12	7/20/2019 19:37	0.68			
SR4	7/20/2019 19:57	0.53				SR12	7/20/2019 19:57	0.66			
SR4	7/20/2019 20:17	0.51				SR12	7/20/2019 20:17	0.59			
SR4	7/20/2019 20:37	0.48				SR12	7/20/2019 20:37	0.56			
SR4	7/20/2019 20:57	0.49				SR12	7/20/2019 20:57	0.55			
SR4	7/20/2019 21:17	0.48				SR12	7/20/2019 21:17	0.53			
SR4	7/20/2019 21:37	0.47				SR12	7/20/2019 21:37	0.51			
SR4	7/20/2019 21:57	0.50				SR12	7/20/2019 21:57	0.50			
SR4	7/20/2019 22:17	0.50				SR12	7/20/2019 22:17	0.47			
SR4	7/20/2019 22:37	0.46				SR12	7/20/2019 22:37	0.50			
SR4	7/20/2019 22:57	0.50				SR12	7/20/2019 22:57	0.47			
SR4	7/20/2019 23:17	0.46				SR12	7/20/2019 23:17	0.48			
SR4	7/20/2019 23:37	0.47				SR12	7/20/2019 23:37	0.46			
SR4	7/20/2019 23:57	0.47				SR12	7/20/2019 23:57	0.44			

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 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.









24-hr Water Quality Monitoring

Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
SR4	7/21/2019 0:17	0.44				SR12	7/21/2019 0:17	0.42			
SR4	7/21/2019 0:37	0.43				SR12	7/21/2019 0:37	0.41			
SR4	7/21/2019 0:57	0.43				SR12	7/21/2019 0:57	0.45			
SR4	7/21/2019 1:17	0.41				SR12	7/21/2019 1:17	0.44			
SR4	7/21/2019 1:37	0.43				SR12	7/21/2019 1:37	0.42			
SR4	7/21/2019 1:57	0.43				SR12	7/21/2019 1:57	0.41			
SR4	7/21/2019 2:17	0.41				SR12	7/21/2019 2:17	0.45			
SR4	7/21/2019 2:37	0.42				SR12	7/21/2019 2:37	0.44			
SR4	7/21/2019 2:57	0.44				SR12	7/21/2019 2:57	0.43			
SR4	7/21/2019 3:17	0.43				SR12	7/21/2019 3:17	0.41			
SR4	7/21/2019 3:37	0.44				SR12	7/21/2019 3:37	0.40			
SR4	7/21/2019 3:57	0.41				SR12	7/21/2019 3:57	0.40			
SR4	7/21/2019 4:17	0.40				SR12	7/21/2019 4:17	0.38			
SR4	7/21/2019 4:37	0.36				SR12	7/21/2019 4:37	0.37			
SR4	7/21/2019 4:57	0.38				SR12	7/21/2019 4:57	0.39			
SR4	7/21/2019 5:17	0.38				SR12	7/21/2019 5:17	0.38			
SR4	7/21/2019 5:37	0.36				SR12	7/21/2019 5:37	0.38			
SR4	7/21/2019 5:57	0.37				SR12	7/21/2019 5:57	0.38			
SR4						SR12					
SR4	7/21/2019 6:37	0.37				SR12	7/21/2019 6:37	0.38			
SR4	7/21/2019 6:57	0.37				SR12	7/21/2019 6:57	0.38			
SR4	7/21/2019 7:17	0.37				SR12	7/21/2019 7:17	0.39			
SR4	7/21/2019 7:37	0.37				SR12	7/21/2019 7:37	0.38			
SR4	7/21/2019 7:57	0.37				SR12	7/21/2019 7:57	0.37			
SR4	7/21/2019 8:17	0.36				SR12	7/21/2019 8:17	0.35			
SR4	7/21/2019 8:37	0.38				SR12	7/21/2019 8:37	0.35			
SR4	7/21/2019 8:57	0.37				SR12	7/21/2019 8:57	0.35			
SR4	7/21/2019 9:17	0.37				SR12	7/21/2019 9:17	0.35			
SR4	7/21/2019 9:37	0.37				SR12	7/21/2019 9:37	0.36			
SR4	7/21/2019 9:57	0.36				SR12	7/21/2019 9:57	0.37			
SR4	7/21/2019 10:17	0.36				SR12	7/21/2019 10:17	0.35			
SR4	7/21/2019 10:37	0.36				SR12	7/21/2019 10:37	0.37			
SR4	7/21/2019 10:57	0.35				SR12	7/21/2019 10:57	0.36			
SR4	7/21/2019 11:17	0.35				SR12	7/21/2019 11:17	0.36			
SR4	7/21/2019 11:37	0.34				SR12	7/21/2019 11:37	0.34			
SR4	7/21/2019 11:57	0.35				SR12	7/21/2019 11:57	0.34			
SR4	7/21/2019 12:17	0.34				SR12	7/21/2019 12:17	0.35			
SR4	7/21/2019 12:37	0.35				SR12	7/21/2019 12:37	0.36			
SR4	7/21/2019 12:57	0.34				SR12	7/21/2019 12:57	0.35			
SR4	7/21/2019 13:17	0.35				SR12	7/21/2019 13:17	0.35			
SR4	7/21/2019 13:37	0.36				SR12	7/21/2019 13:37	0.36			
SR4	7/21/2019 13:57	0.34				SR12	7/21/2019 13:57	0.35			
SR4	7/21/2019 14:17	0.34				SR12	7/21/2019 14:17	0.36			
SR4	7/21/2019 14:37	0.36				SR12	7/21/2019 14:37	0.35			
SR4	7/21/2019 14:57	0.35				SR12	7/21/2019 14:57	0.33			
SR4	7/21/2019 15:17	0.35				SR12	7/21/2019 15:17	0.33			
SR4	7/21/2019 15:37	0.36				SR12	7/21/2019 15:37	0.33			
SR4	7/21/2019 15:57	0.35				SR12	7/21/2019 15:57	0.34			
SR4	7/21/2019 16:17	0.35				SR12	7/21/2019 16:17	0.34			
SR4	7/21/2019 16:37	0.35				SR12	7/21/2019 16:37	0.34			
SR4	7/21/2019 16:57	0.34				SR12	7/21/2019 16:57	0.34			
SR4	7/21/2019 17:17	0.34				SR12	7/21/2019 17:17	0.32			
SR4	7/21/2019 17:37	0.34				SR12	7/21/2019 17:37	0.34			
SR4	7/21/2019 17:57	0.35				SR12	7/21/2019 17:57	0.34			
SR4	7/21/2019 18:17	0.36				SR12	7/21/2019 18:17	0.34			
SR4	7/21/2019 18:37	0.36				SR12	7/21/2019 18:37	0.32			
SR4	7/21/2019 18:57	0.36				SR12	7/21/2019 18:57	0.32			
SR4	7/21/2019 19:17	0.34				SR12	7/21/2019 19:17	0.31			
SR4	7/21/2019 19:37	0.35				SR12	7/21/2019 19:37	0.30			
SR4	7/21/2019 19:57	0.35				SR12	7/21/2019 19:57	0.30			
SR4	7/21/2019 20:17	0.34				SR12	7/21/2019 20:17	0.32			
SR4	7/21/2019 20:37	0.32				SR12	7/21/2019 20:37	0.30			
SR4	7/21/2019 20:57	0.33				SR12	7/21/2019 20:57	0.30			
SR4	7/21/2019 21:17	0.32				SR12	7/21/2019 21:17	0.32			
SR4	7/21/2019 21:37	0.33				SR12	7/21/2019 21:37	0.32			
SR4	7/21/2019 21:57	0.32				SR12	7/21/2019 21:57	0.32			
SR4	7/21/2019 22:17	0.34				SR12	7/21/2019 22:17	0.32			
SR4	7/21/2019 22:37	0.33				SR12	7/21/2019 22:37	0.30			
SR4	7/21/2019 22:57	0.32				SR12	7/21/2019 22:57	0.31			
SR4	7/21/2019 23:17	0.34				SR12	7/21/2019 23:17	0.31			
SR4	7/21/2019 23:37	0.33				SR12	7/21/2019 23:37	0.30			
SR4	7/21/2019 23:57	0.32				SR12	7/21/2019 23:57	0.32			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH3-N monitor was carried out during 5:57-6:37 at SR4 and SR12.



24-hr Water Quality Monitoring

Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)	Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)	Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)	Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)
SR4	7/22/2019 0:01	27.59	78.7	6.11	8.5	SR4	7/22/2019 6:01	26.09	74.1	5.74	6.8	SR4	7/22/2019 12:01	27.04	86.2	6.65	6.0	SR4	7/22/2019 18:01	26.47	75.8	5.88	7.8
SR4	7/22/2019 0:06	27.57	79.8	6.19	5.8	SR4	7/22/2019 6:06	26.16	69.9	5.51	7.8	SR4	7/22/2019 12:06	27.00	89.1	6.78	8.3	SR4	7/22/2019 18:06	26.43	72.7	5.63	9.8
SR4	7/22/2019 0:11	27.55	79.5	6.17	8.1	SR4	7/22/2019 6:11	26.14	71.8	5.65	7.5	SR4	7/22/2019 12:11	27.01	87.8	6.81	6.5	SR4	7/22/2019 18:11	26.73	75.7	5.96	7.4
SR4	7/22/2019 0:16	27.55	80.4	6.21	9.1	SR4	7/22/2019 6:16	26.13	74.1	5.82	8.9	SR4	7/22/2019 12:16	26.94	87.0	6.59	6.8	SR4	7/22/2019 18:16	26.54	79.9	6.25	8.1
SR4	7/22/2019 0:21	27.54	80.1	6.27	7.5	SR4	7/22/2019 6:21	26.40	77.7	5.83	8.9	SR4						SR4	7/22/2019 18:21	26.53	83.9	6.48	7.6
SR4	7/22/2019 0:26	27.56	80.1	6.22	6.1	SR4	7/22/2019 6:26	26.60	82.1	6.41	7.8	SR4						SR4	7/22/2019 18:26	26.59	87.2	6.71	9.8
SR4	7/22/2019 0:31	27.55	82.9	6.35	7.6	SR4	7/22/2019 6:31	26.59	84.5	6.43	6.9	SR4						SR4	7/22/2019 18:31	26.45	85.2	6.71	7.6
SR4	7/22/2019 0:36	27.56	82.3	6.36	6.2	SR4	7/22/2019 6:36	26.63	84.0	6.52	8.0	SR4						SR4	7/22/2019 18:36	26.50	87.8	6.67	7.6
SR4	7/22/2019 0:41	27.57	83.2	6.40	6.5	SR4	7/22/2019 6:41	26.67	82.7	6.44	6.1	SR4						SR4	7/22/2019 18:41	26.65	87.4	6.71	7.9
SR4	7/22/2019 0:46	27.48	79.0	6.18	7.1	SR4	7/22/2019 6:46	26.62	81.6	6.30	6.0	SR4						SR4	7/22/2019 18:46	26.41	87.3	6.77	9.4
SR4	7/22/2019 0:51	27.55	74.9	5.80	8.4	SR4	7/22/2019 6:51	26.64	82.9	6.42	6.5	SR4						SR4	7/22/2019 18:51	26.64	85.0	6.75	8.3
SR4	7/22/2019 0:56	27.46	76.9	6.01	7.7	SR4	7/22/2019 6:56	26.64	83.8	6.28	6.6	SR4						SR4	7/22/2019 18:56	26.60	86.1	6.55	9.0
SR4	7/22/2019 1:01	27.34	77.8	6.13	8.8	SR4	7/22/2019 7:01	26.51	79.5	6.18	7.8	SR4						SR4	7/22/2019 19:01	26.63	84.5	6.54	7.5
SR4	7/22/2019 1:06	27.31	77.3	5.90	7.3	SR4	7/22/2019 7:06	26.60	80.9	6.13	8.7	SR4						SR4	7/22/2019 19:06	26.76	82.2	6.35	7.4
SR4	7/22/2019 1:11	27.16	79.1	6.09	8.1	SR4	7/22/2019 7:11	26.71	81.5	6.21	8.2	SR4						SR4	7/22/2019 19:11	27.08	78.1	6.00	7.5
SR4	7/22/2019 1:16	27.12	82.6	6.39	6.7	SR4	7/22/2019 7:16	26.62	81.1	6.13	8.6	SR4						SR4	7/22/2019 19:16	26.97	83.3	6.38	6.9
SR4	7/22/2019 1:21	27.12	82.6	6.58	7.8	SR4	7/22/2019 7:21	26.64	78.8	6.04	6.9	SR4						SR4	7/22/2019 19:21	26.95	83.8	6.49	7.9
SR4	7/22/2019 1:26	27.13	82.9	6.29	6.9	SR4	7/22/2019 7:26	26.59	82.1	6.33	6.8	SR4	7/22/2019 13:26	26.66	77.8	6.17	7.1	SR4	7/22/2019 19:26	26.97	80.3	6.18	6.6
SR4	7/22/2019 1:31	27.07	77.3	6.07	8.1	SR4	7/22/2019 7:31	26.60	81.0	6.17	5.8	SR4	7/22/2019 13:31	26.67	80.9	6.13	7.7	SR4	7/22/2019 19:31	26.98	81.0	6.36	6.2
SR4	7/22/2019 1:36	27.16	77.1	6.17	6.9	SR4	7/22/2019 7:36	26.62	81.1	6.33	7.1	SR4	7/22/2019 13:36	26.64	77.2	5.84	6.4	SR4	7/22/2019 19:36	27.00	81.8	6.21	6.9
SR4	7/22/2019 1:41	27.05	78.3	6.01	7.3	SR4	7/22/2019 7:41	26.69	78.6	6.01	7.9	SR4	7/22/2019 13:41	26.63	77.8	6.15	8.2	SR4	7/22/2019 19:41	27.01	81.7	6.38	7.6
SR4	7/22/2019 1:46	26.98	76.7	6.12	8.5	SR4	7/22/2019 7:46	26.74	77.7	6.10	7.2	SR4	7/22/2019 13:46	26.68	76.3	5.99	8.5	SR4	7/22/2019 19:46	26.94	82.3	6.38	8.0
SR4	7/22/2019 1:51	26.98	75.9	5.99	6.4	SR4	7/22/2019 7:51	26.62	82.1	6.21	6.5	SR4	7/22/2019 13:51	26.68	79.1	6.15	7.0	SR4	7/22/2019 19:51	26.94	86.8	6.77	6.3
SR4	7/22/2019 1:56	26.91	76.9	5.84	8.7	SR4	7/22/2019 7:56	26.69	75.8	5.80	7.7	SR4	7/22/2019 13:56	26.66	79.9	6.21	7.3	SR4	7/22/2019 19:56	27.01	87.1	6.78	7.1
SR4	7/22/2019 2:01	26.99	73.9	5.60	7.0	SR4	7/22/2019 8:01	26.65	77.4	5.96	7.3	SR4	7/22/2019 14:01	26.66	83.9	6.48	7.4	SR4	7/22/2019 20:01	27.02	90.5	6.86	6.1
SR4	7/22/2019 2:06	26.91	73.3	5.89	8.3	SR4	7/22/2019 8:06	26.69	76.4	5.77	8.0	SR4	7/22/2019 14:06	26.60	83.1	6.44	7.3	SR4	7/22/2019 20:06	27.01	89.1	6.78	7.6
SR4	7/22/2019 2:11	26.99	76.7	6.09	6.7	SR4	7/22/2019 8:11	26.61	74.5	5.63	8.8	SR4	7/22/2019 14:11	26.60	84.9	6.67	7.5	SR4	7/22/2019 20:11	27.05	89.2	6.91	8.1
SR4	7/22/2019 2:16	26.94	76.9	5.93	7.5	SR4	7/22/2019 8:16	26.69	76.3	5.87	6.5	SR4	7/22/2019 14:16	26.63	85.5	6.55	6.7	SR4	7/22/2019 20:16	27.04	88.3	6.99	7.0
SR4	7/22/2019 2:21	26.88	78.3	6.10	7.9	SR4	7/22/2019 8:21	26.72	77.1	5.89	7.2	SR4	7/22/2019 14:21	26.53	84.0	6.62	8.9	SR4	7/22/2019 20:21	27.08	86.3	6.87	8.1
SR4	7/22/2019 2:26	26.91	77.0	5.94	7.8	SR4	7/22/2019 8:26	26.76	76.9	5.84	6.4	SR4	7/22/2019 14:26	26.55	85.4	6.54	6.7	SR4	7/22/2019 20:26	27.04	83.6	6.57	8.0
SR4	7/22/2019 2:31	26.85	76.2	5.82	8.3	SR4	7/22/2019 8:31	26.62	76.7	5.87	9.2	SR4	7/22/2019 14:31	26.67	80.9	6.37	7.6	SR4	7/22/2019 20:31	27.13	83.7	6.69	6.5
SR4	7/22/2019 2:36	26.92	77.0	6.12	8.8	SR4	7/22/2019 8:36	26.72	77.3	5.93	7.2	SR4	7/22/2019 14:36	26.67	81.2	6.32	7.4	SR4	7/22/2019 20:36	27.08	83.7	6.68	6.7
SR4	7/22/2019 2:41	26.99	74.2	5.75	8.2	SR4	7/22/2019 8:41	26.68	79.2	5.92	9.7	SR4	7/22/2019 14:41	26.50	83.3	6.31	7.5	SR4	7/22/2019 20:41	27.02	83.7	6.57	7.9
SR4	7/22/2019 2:46	26.88	80.1	6.20	8.4	SR4	7/22/2019 8:46	26.75	76.7	5.89	7.4	SR4	7/22/2019 14:46	26.21	85.8	6.71	9.0	SR4	7/22/2019 20:46	26.98	82.6	6.51	6.8
SR4	7/22/2019 2:51	26.93	78.3	6.11	8.6	SR4	7/22/2019 8:51	26.99	78.1	6.02	8.2	SR4	7/22/2019 14:51	26.26	84.8	6.48	7.6	SR4	7/22/2019 20:51	26.98	81.8	6.35	7.3
SR4	7/22/2019 2:56	26.52	77.1	5.93	7.2	SR4	7/22/2019 8:56	26.74	76.7	5.98	9.4	SR4	7/22/2019 14:56	26.25	84.9	6.53	9.3	SR4	7/22/2019 20:56	27.06	81.9	6.37	6.6
SR4	7/22/2019 3:01	26.49	76.6	6.04	6.3	SR4	7/22/2019 9:01	26.78	78.9	6.10	7.2	SR4	7/22/2019 15:01	26.23	77.3	6.07	8.1	SR4	7/22/2019 21:01	27.06	81.6	6.33	7.1
SR4	7/22/2019 3:06	26.46	75.9	5.89	8.8	SR4	7/22/2019 9:06	26.86	79.3	6.03	8.6	SR4	7/22/2019 15:06	26.30	77.0	6.09	7.5	SR4	7/22/2019 21:06	27.10	80.8	6.26	7.7
SR4	7/22/2019 3:11	26.51	76.5	5.80	7.3	SR4	7/22/2019 9:11	26.75	80.8	6.08	7.2	SR4	7/22/2019 15:11	26.42	83.0	6.32	7.3	SR4	7/22/2019 21:11	27.14	81.4	6.35	6.8
SR4	7/22/2019 3:16	26.44	72.6	5.80	8.6	SR4	7/22/2019 9:16	26.87	79.1	6.02	8.0	SR4	7/22/2019 15:16	26.24	78.8	6.02	7.3	SR4	7/22/2019 21:16	27.23	83.0	6.40	7.0
SR4	7/22/2019 3:21	26.49	74.2	5.83	7.9	SR4	7/22/2019 9:21	26.94	79.2	6.12	7.3	SR4	7/22/2019 15:21	26.24	78.2	6.03	8.1	SR4	7/22/2019 21:21	27.24	78.9	6.26	7.2
SR4	7/22/2019 3:26	26.43	75.7	5.86	7.6	SR4	7/22/2019 9:26	26.90	79.4	6.11	7.6	SR4	7/22/2019 15:26	26.29	74.4	5.85	7.3	SR4	7/22/2019 21:26	27.29	81.4	6.14	6.1
SR4	7/22/2019 3:31	26.45	73.9	5.72	8.0	SR4	7/22/2019 9:31	26.94	80.2	6.26	8.4	SR4	7/22/2019 15:31	26.24	86.0	6.59	9.1	SR4	7/22/2019 21:31	27.46	78.8	6.10	6.4
SR4	7/22/2019 3:36	26.42	73.2	5.66	9.3	SR4	7/22/2019 9:36	26.99	81.9	6.31	6.8	SR4	7/22/2019 15:36	26.26	81.3	6.30	8.9	SR4	7/22/2019 21:36	27.36	78.6	6.08	8.4
SR4	7/22/2019 3:41	26.49	70.4	5.41	7.3	SR4	7/22/2019 9:41	26.99	78.7	6.19	6.9	SR4	7/22/2019 15:41	26.36	78.2	6.14	7.9	SR4	7/22/2019 21:41	27.37	78.7	6.10	6.7
SR4	7/22/2019 3:46	26.33	72.7	5.62	8.3	SR4	7/22/2019 9:46	26.97	77.5	6.04	6.0	SR4	7/22/2019 15:46	26.41	77.3	5.91	8.9	SR4	7/22/2019 21:46	27.31	80.5	6.17	8.1
SR4	7/22/2019 3:51	26.39	76.9	5.84	8.1	SR4	7/22/2019 9:51	27.00	78.0	6.20	6.8	SR4	7/22/2019 15:51	26.39	77.5	5.99	7.6	SR4	7/22/2019 21:51	27.21	82.2	6.27	7.3
SR4	7/22/2019 3:56	26.40	67.2	5.01	5.5	SR4	7/22/2019 9:56	26.99	82.1	6.30	5.8	SR4	7/22/2019 15:56	26.49	80.2	6.21	8.6	SR4	7/22/2019 21:56	27.19	82.2	6.31	6.8
SR4	7/22/2019 4:01	26.37	78.3	5.77	6.8	SR4	7/22/2019 10:01	26.99	80.1	6.24	6.9	SR4	7/22/2019 16:01	26.31	84.0	6.43	8.4	SR4	7/22/2019 22:01	27.20	80.8	6.19	7.1
SR4	7/22/2019 4:06	26.36	78.4	5.																			

## 24-hr Water Quality Monitoring

Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)	Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)	Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)	Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)
SR5	7/22/2019 0:00	25.73	73.4	5.91	4.5	SR5	7/22/2019 6:00	27.69	65.9	5.32	3.5	SR5	7/22/2019 12:00	25.83	72.6	5.80	4.9	SR5	7/22/2019 18:00	27.36	72.0	5.73	6.3
SR5	7/22/2019 0:05	25.71	73.5	5.92	3.8	SR5	7/22/2019 6:05	27.68	67.7	5.36	3.8	SR5	7/22/2019 12:05	25.85	72.0	5.76	5.4	SR5	7/22/2019 18:05	27.47	72.7	5.82	7.2
SR5	7/22/2019 0:10	25.76	73.9	5.95	4.2	SR5	7/22/2019 6:10	27.70	61.5	4.90	3.8	SR5	7/22/2019 12:10	25.86	72.5	5.78	5.0	SR5	7/22/2019 18:10	27.37	72.4	5.79	8.3
SR5	7/22/2019 0:15	25.75	73.1	5.88	3.8	SR5	7/22/2019 6:15	27.71	61.6	4.94	4.2	SR5	7/22/2019 12:15	25.85	72.3	5.77	4.2	SR5	7/22/2019 18:15	27.23	71.0	5.68	7.8
SR5	7/22/2019 0:20	25.73	72.4	5.82	4.5	SR5	7/22/2019 6:20	27.71	64.7	5.15	3.3	SR5	7/22/2019 12:20	26.07	71.3	5.70	4.9	SR5	7/22/2019 18:20	27.16	73.2	5.86	6.9
SR5	7/22/2019 0:25	25.72	72.6	5.84	4.2	SR5	7/22/2019 6:25	27.70	68.3	5.44	3.3	SR5	7/22/2019 12:25	26.31	73.1	5.82	4.2	SR5	7/22/2019 18:25	27.20	73.6	5.89	8.2
SR5	7/22/2019 0:30	25.71	73.5	5.93	4.5	SR5	7/22/2019 6:30	27.71	70.0	5.65	4.3	SR5	7/22/2019 12:30	27.03	72.3	5.79	6.2	SR5	7/22/2019 18:30	27.38	71.1	5.67	7.5
SR5	7/22/2019 0:35	25.71	73.6	5.92	4.3	SR5	7/22/2019 6:35	27.73	73.0	5.80	4.0	SR5	7/22/2019 12:35	27.11	72.7	5.81	5.0	SR5	7/22/2019 18:35	27.45	72.7	5.80	8.9
SR5	7/22/2019 0:40	25.69	73.6	5.92	5.2	SR5	7/22/2019 6:40	27.73	74.3	5.94	3.7	SR5	7/22/2019 12:40	26.97	72.1	5.84	5.2	SR5	7/22/2019 18:40	27.51	71.3	5.69	7.4
SR5	7/22/2019 0:45	25.69	73.5	5.92	4.7	SR5	7/22/2019 6:45	27.74	74.3	5.99	3.6	SR5	7/22/2019 12:45	26.95	72.4	5.78	6.0	SR5	7/22/2019 18:45	27.43	71.3	5.68	8.3
SR5	7/22/2019 0:50	25.65	72.1	5.80	4.3	SR5	7/22/2019 6:50	27.75	74.4	6.00	4.0	SR5	7/22/2019 12:50	27.11	70.2	5.60	6.8	SR5	7/22/2019 18:50	27.52	72.9	5.83	7.3
SR5	7/22/2019 0:55	25.64	69.6	5.60	4.8	SR5	7/22/2019 6:55	27.73	74.3	6.03	3.9	SR5	7/22/2019 12:55	27.04	70.6	5.62	6.2	SR5	7/22/2019 18:55	27.53	72.4	5.77	7.4
SR5	7/22/2019 1:00	25.64	69.7	5.60	5.1	SR5	7/22/2019 7:00	27.70	74.0	5.98	3.9	SR5	7/22/2019 13:00	27.08	70.3	5.62	6.1	SR5	7/22/2019 19:00	27.63	73.3	5.85	6.7
SR5	7/22/2019 1:05	25.64	69.1	5.54	4.1	SR5	7/22/2019 7:05	27.69	74.4	6.07	4.5	SR5	7/22/2019 13:05	26.93	74.2	5.92	6.6	SR5	7/22/2019 19:05	27.67	72.4	5.78	6.5
SR5	7/22/2019 1:10	25.64	69.0	5.51	4.8	SR5	7/22/2019 7:10	27.69	73.6	5.98	3.6	SR5	7/22/2019 13:10	26.81	73.8	5.90	6.7	SR5	7/22/2019 19:10	27.66	73.4	5.88	7.5
SR5	7/22/2019 1:15	25.64	68.2	5.44	4.9	SR5	7/22/2019 7:15	27.70	74.7	6.12	3.9	SR5	7/22/2019 13:15	26.70	71.8	5.73	6.5	SR5	7/22/2019 19:15	27.56	72.0	5.75	7.6
SR5	7/22/2019 1:20	25.63	69.0	5.50	5.3	SR5	7/22/2019 7:20	27.72	75.8	6.09	3.6	SR5	7/22/2019 13:20	26.69	70.6	5.57	6.3	SR5	7/22/2019 19:20	27.48	72.4	5.76	7.3
SR5	7/22/2019 1:25	25.63	68.9	5.51	3.5	SR5	7/22/2019 7:25	27.72	75.6	6.08	3.5	SR5	7/22/2019 13:25	26.53	72.5	5.78	6.7	SR5	7/22/2019 19:25	27.55	72.2	5.76	6.8
SR5	7/22/2019 1:30	25.63	72.5	5.80	4.4	SR5	7/22/2019 7:30	27.72	76.0	6.12	3.5	SR5	7/22/2019 13:30	26.86	72.1	5.79	6.7	SR5	7/22/2019 19:30	27.54	72.8	5.81	8.8
SR5	7/22/2019 1:35	25.69	73.0	5.86	3.8	SR5	7/22/2019 7:35	27.71	75.2	6.04	3.9	SR5	7/22/2019 13:35	26.67	70.2	5.60	6.6	SR5	7/22/2019 19:35	27.65	72.6	5.80	7.7
SR5	7/22/2019 1:40	26.26	74.0	5.93	4.3	SR5	7/22/2019 7:40	27.70	75.5	5.99	3.6	SR5	7/22/2019 13:40	26.88	70.5	5.61	6.1	SR5	7/22/2019 19:40	27.48	72.4	5.77	7.2
SR5	7/22/2019 1:45	26.56	74.0	5.93	4.9	SR5	7/22/2019 7:45	27.71	74.8	5.93	3.7	SR5	7/22/2019 13:45	27.07	72.3	5.72	6.4	SR5	7/22/2019 19:45	27.70	72.3	5.78	7.5
SR5	7/22/2019 1:50	26.60	74.1	5.94	3.8	SR5	7/22/2019 7:50	27.71	73.6	5.97	4.1	SR5	7/22/2019 13:50	26.97	72.9	5.89	6.9	SR5	7/22/2019 19:50	27.89	73.8	5.88	8.6
SR5	7/22/2019 1:55	26.74	74.0	5.93	3.9	SR5	7/22/2019 7:55	27.71	74.2	5.97	3.9	SR5	7/22/2019 13:55	26.74	73.6	5.88	6.8	SR5	7/22/2019 19:55	27.84	71.4	5.71	7.6
SR5	7/22/2019 2:00	26.69	74.1	5.93	4.5	SR5	7/22/2019 8:00	27.71	75.7	6.09	3.4	SR5	7/22/2019 14:00	26.85	71.0	5.68	7.2	SR5	7/22/2019 20:00	27.83	71.9	5.73	7.4
SR5	7/22/2019 2:05	26.59	74.5	5.97	5.1	SR5	7/22/2019 8:05	27.66	77.2	6.18	3.7	SR5	7/22/2019 14:05	26.86	71.9	5.86	7.2	SR5	7/22/2019 20:05	27.82	74.2	5.91	8.0
SR5	7/22/2019 2:10	26.65	73.6	5.89	5.6	SR5	7/22/2019 8:10	27.64	75.6	6.18	4.1	SR5	7/22/2019 14:10	27.24	73.4	5.87	6.4	SR5	7/22/2019 20:10	27.73	72.0	5.74	8.3
SR5	7/22/2019 2:15	26.58	73.0	5.86	4.5	SR5	7/22/2019 8:15	27.61	76.9	6.27	3.5	SR5	7/22/2019 14:15	27.01	72.6	5.74	7.4	SR5	7/22/2019 20:15	27.74	73.7	5.88	7.8
SR5	7/22/2019 2:20	26.41	73.4	5.88	4.6	SR5	7/22/2019 8:20	27.67	74.6	6.03	3.8	SR5	7/22/2019 14:20	27.23	72.1	5.74	7.4	SR5	7/22/2019 20:20	27.74	74.5	5.95	7.2
SR5	7/22/2019 2:25	26.49	72.8	5.83	3.9	SR5	7/22/2019 8:25	27.65	74.6	6.06	3.9	SR5	7/22/2019 14:25	27.45	73.9	5.87	6.6	SR5	7/22/2019 20:25	27.78	74.0	5.92	6.4
SR5	7/22/2019 2:30	26.54	73.3	5.87	4.5	SR5	7/22/2019 8:30	27.63	75.6	6.05	3.9	SR5	7/22/2019 14:30	27.72	73.1	5.88	7.6	SR5	7/22/2019 20:30	27.77	73.6	5.88	7.4
SR5	7/22/2019 2:35	26.57	72.8	5.84	4.3	SR5	7/22/2019 8:35	27.64	75.4	6.01	3.8	SR5	7/22/2019 14:35	27.65	71.6	5.73	6.9	SR5	7/22/2019 20:35	27.75	74.8	5.97	6.8
SR5	7/22/2019 2:40	26.61	73.4	5.88	3.6	SR5	7/22/2019 8:40	27.62	75.1	6.01	3.6	SR5	7/22/2019 14:40	27.57	72.5	5.84	7.7	SR5	7/22/2019 20:40	27.74	73.7	5.89	6.5
SR5	7/22/2019 2:45	26.56	72.2	5.78	3.8	SR5	7/22/2019 8:45	27.64	74.8	6.03	3.1	SR5	7/22/2019 14:45	27.70	73.2	5.83	7.0	SR5	7/22/2019 20:45	27.74	73.5	5.88	6.9
SR5	7/22/2019 2:50	26.55	74.4	5.91	4.9	SR5	7/22/2019 8:50	27.65	73.2	5.96	3.4	SR5	7/22/2019 14:50	27.69	71.8	5.79	7.1	SR5	7/22/2019 20:50	27.73	72.7	5.81	6.4
SR5	7/22/2019 2:55	26.57	72.6	5.86	5.0	SR5	7/22/2019 8:55	27.63	70.5	5.72	3.7	SR5	7/22/2019 14:55	27.71	72.8	5.75	6.9	SR5	7/22/2019 20:55	27.74	71.2	5.68	6.2
SR5	7/22/2019 3:00	26.77	72.9	5.85	3.8	SR5	7/22/2019 9:00	27.64	70.3	5.57	4.2	SR5	7/22/2019 15:00	27.75	72.9	5.82	6.2	SR5	7/22/2019 21:00	27.71	74.1	5.91	6.9
SR5	7/22/2019 3:05	26.88	72.5	5.82	4.4	SR5	7/22/2019 9:05	27.70	71.5	5.75	3.4	SR5	7/22/2019 15:05	27.64	71.8	5.82	6.6	SR5	7/22/2019 21:05	27.75	71.8	5.73	7.3
SR5	7/22/2019 3:10	26.81	72.2	5.79	4.1	SR5	7/22/2019 9:10	27.67	71.7	5.76	3.1	SR5	7/22/2019 15:10	27.66	73.3	5.80	6.1	SR5	7/22/2019 21:10	27.63	72.0	5.74	7.3
SR5	7/22/2019 3:15	26.82	71.8	5.75	4.3	SR5	7/22/2019 9:15	27.60	72.4	5.89	3.5	SR5	7/22/2019 15:15	27.75	70.7	5.70	6.0	SR5	7/22/2019 21:15	27.64	74.3	5.94	9.3
SR5	7/22/2019 3:20	26.83	71.9	5.76	3.7	SR5	7/22/2019 9:20	27.69	72.8	5.86	3.6	SR5	7/22/2019 15:20	27.73	72.2	5.81	6.8	SR5	7/22/2019 21:20	27.72	71.6	5.71	8.5
SR5	7/22/2019 3:25	26.88	72.5	5.80	4.3	SR5	7/22/2019 9:25	27.62	72.5	5.88	3.9	SR5	7/22/2019 15:25	27.71	72.6	5.79	7.1	SR5	7/22/2019 21:25	27.70	73.0	5.82	7.1
SR5	7/22/2019 3:30	26.84	71.9	5.76	4.1	SR5	7/22/2019 9:30	27.62	71.4	5.68	3.7	SR5	7/22/2019 15:30	27.79	72.3	5.80	7.4	SR5	7/22/2019 21:30	27.61	72.4	5.79	7.5
SR5	7/22/2019 3:35	26.83	69.0	5.53	3.8	SR5	7/22/2019 9:35	27.62	75.4	6.05	4.1	SR5	7/22/2019 15:35	27.77	70.4	5.70	6.7	SR5	7/22/2019 21:35	27.59	73.6	5.88	7.6
SR5	7/22/2019 3:40	26.83	66.9	5.35	4.2	SR5	7/22/2019 9:40	27.59	75.1	6.10	3.6	SR5	7/22/2019 15:40	27.85	72.5	5.80	6.5	SR5	7/22/2019 21:40	27.52	73.6	5.88	6.8
SR5	7/22/2019 3:45	26.90	69.7	5.58	3.9	SR5	7/22/2019 9:45	27.42	76.8	6.15	3.6	SR5	7/22/2019 15:45	27.78	71.5	5.71	5.8	SR5	7/22/2019 21:45	27.48	72.1	5.77	6.5
SR5	7/22/2019 3:50	26.92	71.4	5.72	3.9	SR5	7/22/2019 9:50	27.65	76.5	6.18	3.6	SR5	7/22/2019 15:50	27.97	73.5	5.86	6.6	SR5	7/22/2019 21:50	27.51	70.7	5.66	6.5
SR5	7/22/2019 3:55	26.98	69.0	5.59	3.5	SR5	7/22/2019 9:55	27.58															

24-hr Water Quality Monitoring

Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)	Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)	Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)	Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)
SR12	7/22/2019 0:01	26.36	60.2	4.10	6.9	SR12	7/22/2019 6:01	26.32	58.9	4.31	<b>10.7</b>	SR12	7/22/2019 12:01	26.25	63.2	4.28	9.4	SR12	7/22/2019 18:01	26.44	63.7	4.60	5.5
SR12	7/22/2019 0:06	26.34	58.4	4.76	6.7	SR12	7/22/2019 6:06	26.43	63.0	4.44	7.9	SR12	7/22/2019 12:06	26.32	57.5	4.33	7.7	SR12	7/22/2019 18:06	26.42	60.5	4.30	6.5
SR12	7/22/2019 0:11	26.58	61.5	4.38	<b>10.0</b>	SR12	7/22/2019 6:11	26.42	63.6	4.15	9.6	SR12	7/22/2019 12:11	26.48	58.9	4.61	7.3	SR12	7/22/2019 18:11	26.49	57.8	4.07	7.8
SR12	7/22/2019 0:16	26.47	63.5	4.37	7.3	SR12	7/22/2019 6:16	26.25	67.4	4.22	7.5	SR12	7/22/2019 12:16	26.78	65.3	4.28	7.6	SR12	7/22/2019 18:16	26.46	59.5	4.33	6.4
SR12	7/22/2019 0:21	26.61	57.8	4.69	8.9	SR12	7/22/2019 6:21	26.44	64.4	4.23	8.9	SR12	7/22/2019 12:21	26.48	61.9	4.11	6.9	SR12	7/22/2019 18:21	26.48	64.0	4.44	6.2
SR12	7/22/2019 0:26	26.74	58.4	4.42	8.0	SR12	7/22/2019 6:26	26.44	62.6	4.39	7.8	SR12	7/22/2019 12:26	26.50	60.6	4.17	8.1	SR12	7/22/2019 18:26	26.49	57.8	4.54	6.6
SR12	7/22/2019 0:31	26.72	65.7	4.70	7.7	SR12	7/22/2019 6:31	26.33	62.6	4.30	7.7	SR12	7/22/2019 12:31	26.63	62.6	4.74	7.2	SR12	7/22/2019 18:31	26.50	65.7	4.12	5.6
SR12	7/22/2019 0:36	26.73	66.3	4.75	8.6	SR12	7/22/2019 6:36	26.43	64.7	4.75	8.8	SR12	7/22/2019 12:36	26.45	63.6	4.22	9.4	SR12	7/22/2019 18:36	26.60	58.7	4.13	5.7
SR12	7/22/2019 0:41	26.76	66.4	4.75	9.9	SR12	7/22/2019 6:41	26.43	67.4	4.71	6.3	SR12	7/22/2019 12:41	26.54	58.4	4.09	9.1	SR12	7/22/2019 18:41	26.60	58.5	4.11	8.4
SR12	7/22/2019 0:46	26.88	58.7	4.07	7.6	SR12	7/22/2019 6:46	26.41	62.3	4.73	6.7	SR12	7/22/2019 12:46	26.75	62.0	4.67	8.4	SR12	7/22/2019 18:46	26.61	57.7	4.06	6.3
SR12	7/22/2019 0:51	26.66	63.9	4.54	8.5	SR12	7/22/2019 6:51	26.35	59.5	4.34	5.8	SR12	7/22/2019 12:51	26.86	58.4	4.10	9.6	SR12	7/22/2019 18:51	26.59	61.1	4.10	7.6
SR12	7/22/2019 0:56	26.77	67.3	4.43	8.2	SR12	7/22/2019 6:56	26.42	57.4	4.55	6.8	SR12	7/22/2019 12:56	26.93	59.5	4.18	7.8	SR12	7/22/2019 18:56	26.58	66.6	4.39	7.0
SR12	7/22/2019 1:01	26.82	67.1	4.24	5.2	SR12	7/22/2019 7:01	26.42	67.5	4.62	5.1	SR12	7/22/2019 13:01	27.02	61.2	4.30	9.1	SR12	7/22/2019 19:01	26.56	66.7	4.57	6.5
SR12	7/22/2019 1:06	26.78	63.5	4.08	6.3	SR12	7/22/2019 7:06	26.40	63.3	4.60	7.5	SR12	7/22/2019 13:06	26.65	67.4	4.55	8.9	SR12	7/22/2019 19:06	26.53	63.3	4.26	6.7
SR12	7/22/2019 1:11	26.76	62.5	4.46	6.1	SR12	7/22/2019 7:11	26.38	60.5	4.42	6.2	SR12	7/22/2019 13:11	26.81	60.6	4.25	7.9	SR12	7/22/2019 19:11	26.68	57.8	4.07	7.8
SR12	7/22/2019 1:16	26.65	58.2	4.07	7.0	SR12	7/22/2019 7:16	26.40	62.7	4.70	8.0	SR12	7/22/2019 13:16	26.25	60.6	4.79	9.4	SR12	7/22/2019 19:16	26.69	57.7	4.06	7.5
SR12	7/22/2019 1:21	26.85	64.7	4.36	8.7	SR12	7/22/2019 7:21	26.31	67.4	4.76	7.3	SR12	7/22/2019 13:21	26.80	61.1	4.28	7.7	SR12	7/22/2019 19:21	26.71	58.9	4.15	6.7
SR12	7/22/2019 1:26	26.77	58.1	4.64	7.5	SR12	7/22/2019 7:26	26.39	60.3	4.28	8.8	SR12	7/22/2019 13:26	25.92	60.5	4.15	8.8	SR12	7/22/2019 19:26	26.77	59.5	4.19	6.1
SR12	7/22/2019 1:31	26.76	61.1	4.28	7.1	SR12	7/22/2019 7:31	26.39	64.2	4.14	8.2	SR12	7/22/2019 13:31	27.17	60.8	4.26	7.3	SR12	7/22/2019 19:31	26.77	58.6	4.12	5.4
SR12	7/22/2019 1:36	26.74	57.5	4.44	7.5	SR12	7/22/2019 7:36	26.40	67.0	4.68	8.1	SR12	7/22/2019 13:36	26.78	58.6	4.11	7.6	SR12	7/22/2019 19:36	26.79	59.9	4.22	5.6
SR12	7/22/2019 1:41	26.84	58.5	4.07	6.9	SR12	7/22/2019 7:41	26.49	63.2	4.30	8.7	SR12	7/22/2019 13:41	26.85	58.2	4.08	7.9	SR12	7/22/2019 19:41	26.80	59.7	4.21	5.7
SR12	7/22/2019 1:46	26.90	61.5	4.14	8.7	SR12	7/22/2019 7:46	26.52	58.9	4.16	7.9	SR12	7/22/2019 13:46	26.71	59.5	4.47	6.0	SR12	7/22/2019 19:46	26.79	58.7	4.14	6.0
SR12	7/22/2019 1:51	26.86	58.5	4.08	<b>10.4</b>	SR12	7/22/2019 7:51	26.47	62.5	4.54	7.1	SR12	7/22/2019 13:51	26.67	58.2	4.13	<b>10.1</b>	SR12	7/22/2019 19:51	26.81	58.5	4.12	6.8
SR12	7/22/2019 1:56	26.75	67.4	4.37	9.8	SR12	7/22/2019 7:56	26.60	63.2	4.79	6.9	SR12	7/22/2019 13:56	26.46	58.2	4.53	<b>11.0</b>	SR12	7/22/2019 19:56	26.81	58.7	4.13	6.2
SR12	7/22/2019 2:01	26.78	59.2	4.35	7.6	SR12	7/22/2019 8:01	26.56	64.3	4.34	7.6	SR12	7/22/2019 14:01	26.37	57.7	4.63	<b>7.8</b>	SR12	7/22/2019 20:01	26.84	59.4	4.19	5.7
SR12	7/22/2019 2:06	26.86	61.3	4.21	9.4	SR12	7/22/2019 8:06	26.52	58.2	4.37	6.4	SR12	7/22/2019 14:06	26.57	60.2	4.70	9.3	SR12	7/22/2019 20:06	26.80	58.5	4.39	6.5
SR12	7/22/2019 2:11	26.78	63.2	4.37	<b>11.5</b>	SR12	7/22/2019 8:11	26.55	59.8	4.22	6.9	SR12	7/22/2019 14:11	26.53	57.8	4.49	7.9	SR12	7/22/2019 20:11	26.80	57.8	4.07	6.5
SR12	7/22/2019 2:16	26.76	64.0	4.77	<b>10.9</b>	SR12	7/22/2019 8:16	26.45	59.2	4.50	7.3	SR12	7/22/2019 14:16	26.58	63.5	4.08	8.1	SR12	7/22/2019 20:16	26.82	58.1	4.10	7.0
SR12	7/22/2019 2:21	26.88	60.8	4.14	9.9	SR12	7/22/2019 8:21	26.45	65.4	4.61	7.1	SR12	7/22/2019 14:21	26.40	66.7	4.75	8.2	SR12	7/22/2019 20:21	26.82	57.8	4.07	7.7
SR12	7/22/2019 2:26	26.76	63.5	4.24	8.3	SR12	7/22/2019 8:26	26.70	62.0	4.39	7.4	SR12	7/22/2019 14:26	26.72	60.5	4.45	7.5	SR12	7/22/2019 20:26	26.91	61.6	4.34	5.6
SR12	7/22/2019 2:31	26.77	66.1	4.48	7.5	SR12	7/22/2019 8:31	26.56	63.9	4.66	7.2	SR12	7/22/2019 14:31	26.29	61.1	4.54	6.7	SR12	7/22/2019 20:31	26.88	61.3	4.33	6.4
SR12	7/22/2019 2:36	26.54	64.4	4.35	7.3	SR12	7/22/2019 8:36	26.58	61.8	4.33	8.2	SR12	7/22/2019 14:36	26.42	58.0	4.36	7.5	SR12	7/22/2019 20:36	26.88	61.1	4.32	6.5
SR12	7/22/2019 2:41	26.74	63.6	4.76	6.8	SR12	7/22/2019 8:41	26.45	67.0	4.70	6.2	SR12	7/22/2019 14:41	26.41	64.3	4.26	7.3	SR12	7/22/2019 20:41	26.89	61.1	4.31	8.6
SR12	7/22/2019 2:46	26.73	65.3	4.09	8.6	SR12	7/22/2019 8:46	26.41	58.9	4.40	7.8	SR12	7/22/2019 14:46	26.36	62.2	4.72	9.6	SR12	7/22/2019 20:46	26.91	60.2	4.26	7.5
SR12	7/22/2019 2:51	26.66	57.8	4.60	9.8	SR12	7/22/2019 8:51	26.43	58.5	4.59	7.8	SR12	7/22/2019 14:51	26.18	64.9	4.26	7.1	SR12	7/22/2019 20:51	26.91	60.1	4.25	7.2
SR12	7/22/2019 2:56	26.55	66.3	4.07	9.3	SR12	7/22/2019 8:56	26.32	60.1	4.61	6.3	SR12	7/22/2019 14:56	26.39	64.0	4.19	8.7	SR12	7/22/2019 20:56	26.91	59.5	4.21	9.9
SR12	7/22/2019 3:01	26.51	65.4	4.58	9.5	SR12	7/22/2019 9:01	26.49	58.7	4.31	8.0	SR12	7/22/2019 15:01	25.96	57.8	4.62	9.5	SR12	7/22/2019 21:01	26.92	60.3	4.26	9.3
SR12	7/22/2019 3:06	26.55	66.6	4.70	7.1	SR12	7/22/2019 9:06	26.36	59.9	4.09	5.7	SR12	7/22/2019 15:06	26.25	59.1	4.20	7.3	SR12	7/22/2019 21:06	26.93	60.1	4.24	7.3
SR12	7/22/2019 3:11	26.69	59.5	4.58	7.7	SR12	7/22/2019 9:11	26.27	66.3	4.27	9.2	SR12	7/22/2019 15:11	26.32	63.7	4.55	<b>10.7</b>	SR12	7/22/2019 21:11	26.94	60.7	4.29	6.8
SR12	7/22/2019 3:16	26.65	59.4	4.53	8.1	SR12	7/22/2019 9:16	26.29	67.4	4.78	6.6	SR12	7/22/2019 15:16	26.60	60.3	4.60	7.3	SR12	7/22/2019 21:16	26.93	59.1	4.17	<b>10.0</b>
SR12	7/22/2019 3:21	26.57	59.4	4.49	9.9	SR12	7/22/2019 9:21	26.17	66.1	4.18	7.1	SR12	7/22/2019 15:21	26.40	58.5	4.32	7.6	SR12	7/22/2019 21:21	26.94	58.7	4.15	9.5
SR12	7/22/2019 3:26	26.53	67.1	4.18	9.2	SR12	7/22/2019 9:26	26.16	62.0	4.47	7.4	SR12	7/22/2019 15:26	26.17	60.9	4.18	7.8	SR12	7/22/2019 21:26	26.94	57.6	4.07	9.8
SR12	7/22/2019 3:31	26.64	64.6	4.75	8.6	SR12	7/22/2019 9:31	25.95	59.1	4.33	6.6	SR12	7/22/2019 15:31	26.30	67.3	4.62	<b>10.6</b>	SR12	7/22/2019 21:31	26.93	62.5	4.24	7.9
SR12	7/22/2019 3:36	26.57	66.4	4.31	7.1	SR12	7/22/2019 9:36	25.90	63.3	4.15	7.0	SR12	7/22/2019 15:36	25.93	60.1	4.57	7.1	SR12	7/22/2019 21:36	26.89	59.9	4.14	9.8
SR12	7/22/2019 3:41	26.52	63.5	4.51	8.0	SR12	7/22/2019 9:41	26.11	64.9	4.19	7.2	SR12	7/22/2019 15:41	26.25	65.3	4.17	7.6	SR12	7/22/2019 21:41	26.93	58.7	4.66	8.8
SR12	7/22/2019 3:46	26.64	65.4	4.76	6.2	SR12	7/22/2019 9:46	26.14	58.0	4.52	7.1	SR12	7/22/2019 15:46	26.45	65.7	4.41	8.1	SR12	7/22/2019 21:46	26.91	57.8	4.44	9.9
SR12	7/22/2019 3:51	26.64	60.5	4.19	6.0	SR12	7/22/2019 9:51	25.95	59.1	4.66	<b>10.1</b>												

## 24-hr Water Quality Monitoring

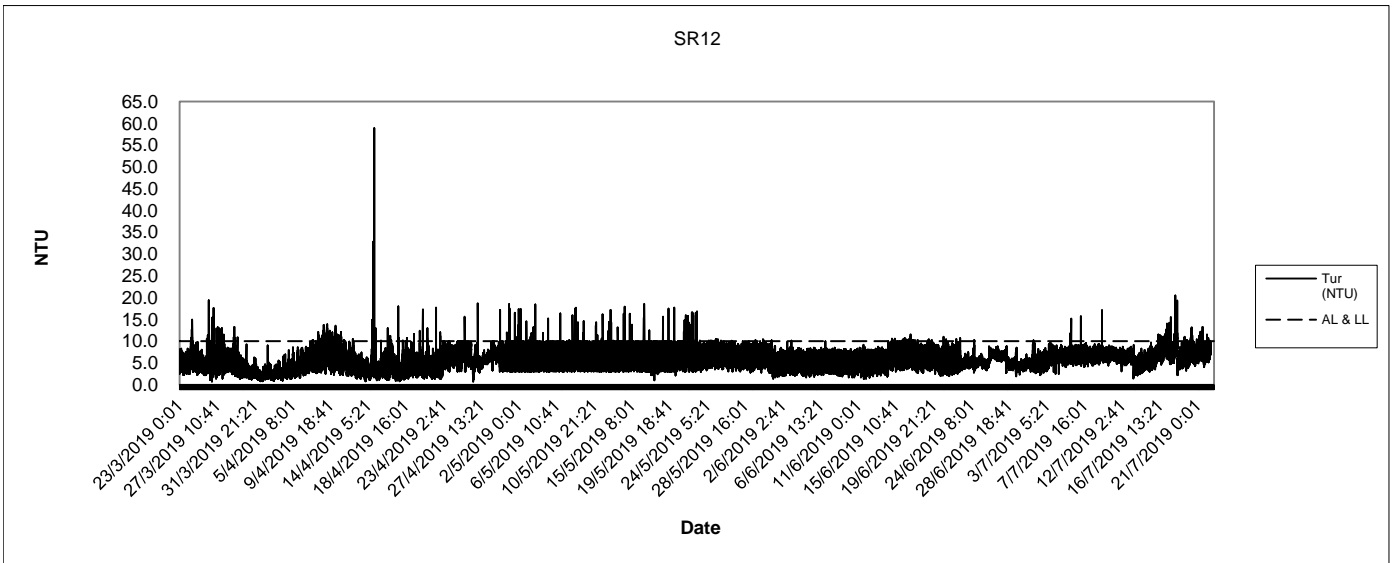
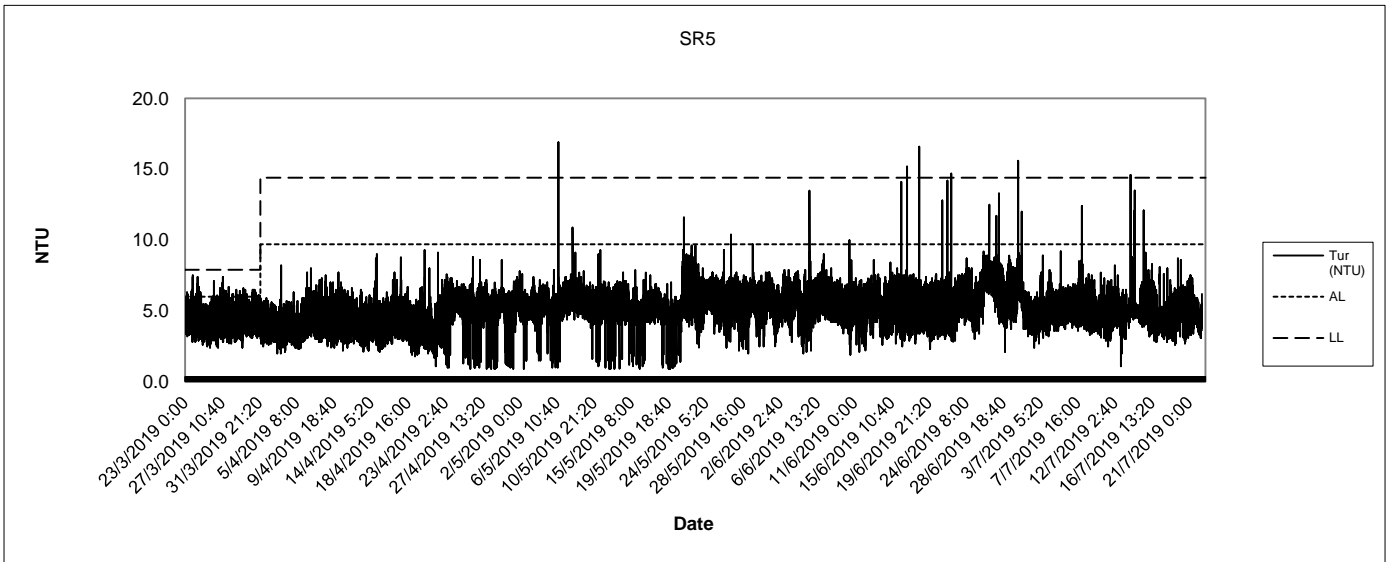
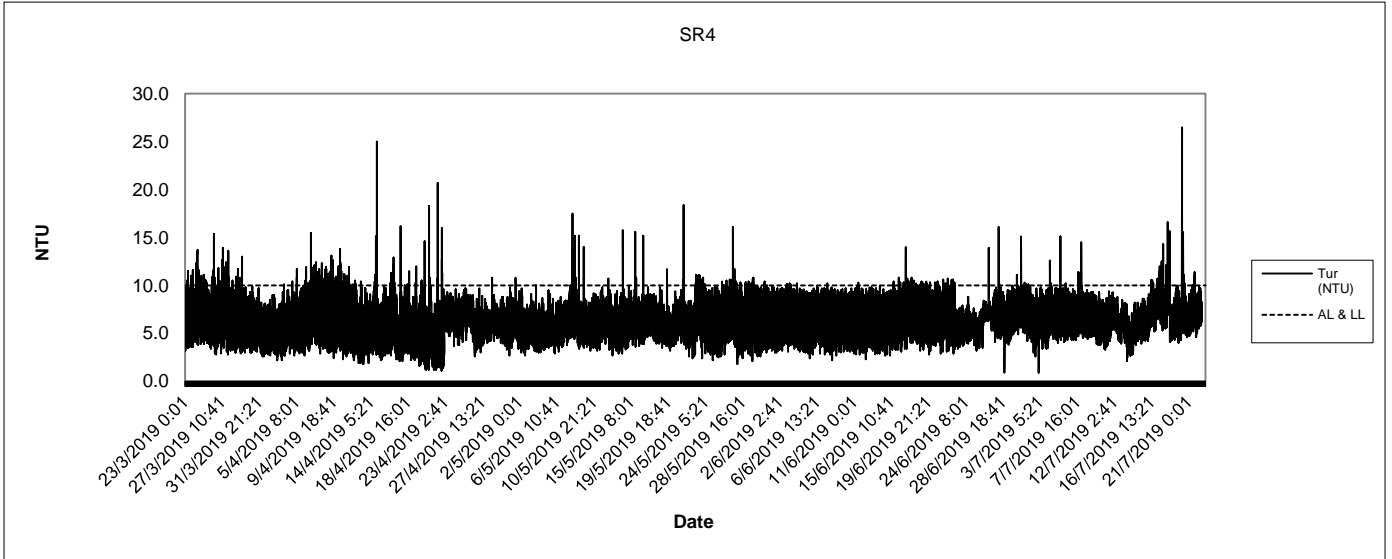
Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)	Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)	Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)	Station	Timestamp	Temp (°C)	DO (%)	DO (mg/L)	Tur (NTU)
SR13	7/22/2019 0:00	27.38	77.4	5.81	7.5	SR13	7/22/2019 6:00	27.25	63.4	4.69	8.8	SR13	7/22/2019 12:00	27.20	67.1	4.63	7.6	SR13	7/22/2019 18:00	26.88	68.8	4.96	8.1
SR13	7/22/2019 0:05	27.53	76.8	5.58	7.0	SR13	7/22/2019 6:05	27.25	62.3	4.68	8.3	SR13	7/22/2019 12:05	27.26	64.2	4.79	8.3	SR13	7/22/2019 18:05	26.89	67.2	4.84	8.6
SR13	7/22/2019 0:10	27.44	77.0	5.71	8.1	SR13	7/22/2019 6:10	27.16	63.3	4.74	8.5	SR13	7/22/2019 12:10	27.15	61.7	4.71	8.0	SR13	7/22/2019 18:10	26.96	69.0	4.96	8.4
SR13	7/22/2019 0:15	27.40	73.8	5.61	8.5	SR13	7/22/2019 6:15	27.16	61.8	4.80	8.8	SR13	7/22/2019 12:15	26.96	65.0	4.52	8.5	SR13	7/22/2019 18:15	26.95	68.3	4.92	8.2
SR13	7/22/2019 0:20	26.92	75.3	5.43	7.5	SR13	7/22/2019 6:20	27.22	60.7	4.74	9.2	SR13	7/22/2019 12:20	26.74	60.4	4.75	7.4	SR13	7/22/2019 18:20	26.98	67.0	4.83	8.2
SR13	7/22/2019 0:25	26.83	74.4	5.69	8.3	SR13	7/22/2019 6:25	27.04	62.0	4.86	7.5	SR13	7/22/2019 12:25	27.05	61.6	4.56	6.7	SR13	7/22/2019 18:25	26.95	71.1	5.07	7.7
SR13	7/22/2019 0:30	26.64	76.1	5.57	8.0	SR13	7/22/2019 6:30	27.03	60.4	4.70	7.7	SR13	7/22/2019 12:30	27.01	64.8	4.72	8.0	SR13	7/22/2019 18:30	26.97	67.5	4.86	7.3
SR13	7/22/2019 0:35	26.67	73.3	5.61	7.3	SR13	7/22/2019 6:35	26.99	59.4	4.61	8.1	SR13	7/22/2019 12:35	26.94	62.6	4.77	7.2	SR13	7/22/2019 18:35	26.94	67.5	4.86	7.3
SR13	7/22/2019 0:40	26.57	74.5	5.49	7.5	SR13	7/22/2019 6:40	27.01	62.3	4.76	8.4	SR13	7/22/2019 12:40	26.71	62.8	4.80	8.1	SR13	7/22/2019 18:40	26.93	66.2	4.77	8.0
SR13	7/22/2019 0:45	26.57	76.8	5.65	8.0	SR13	7/22/2019 6:45	27.01	60.6	4.67	6.8	SR13	7/22/2019 12:45	26.93	62.7	4.84	7.4	SR13	7/22/2019 18:45	26.92	67.3	4.80	7.8
SR13	7/22/2019 0:50	26.56	76.5	5.72	8.2	SR13	7/22/2019 6:50	26.93	60.3	4.93	8.6	SR13	7/22/2019 12:50	26.79	63.2	4.73	8.1	SR13	7/22/2019 18:50	26.94	66.8	4.90	8.4
SR13	7/22/2019 0:55	26.54	76.1	5.56	8.5	SR13	7/22/2019 6:55	26.90	64.6	4.72	7.4	SR13	7/22/2019 12:55	27.08	63.9	4.64	8.2	SR13	7/22/2019 18:55	27.03	66.7	4.81	8.3
SR13	7/22/2019 1:00	26.60	76.3	5.53	7.9	SR13	7/22/2019 7:00	26.86	61.9	4.57	7.6	SR13	7/22/2019 13:00	26.99	67.4	4.54	8.7	SR13	7/22/2019 19:00	26.95	71.0	5.00	7.2
SR13	7/22/2019 1:05	26.58	75.8	5.60	8.2	SR13	7/22/2019 7:05	26.94	66.4	4.77	7.5	SR13	7/22/2019 13:05	26.92	66.4	4.62	7.5	SR13	7/22/2019 19:05	26.97	69.5	4.97	7.0
SR13	7/22/2019 1:10	26.60	76.4	5.75	8.3	SR13	7/22/2019 7:10	26.93	64.9	4.79	7.5	SR13	7/22/2019 13:10	26.99	64.0	4.69	8.3	SR13	7/22/2019 19:10	26.99	70.2	4.99	12.3
SR13	7/22/2019 1:15	26.56	74.2	5.77	8.0	SR13	7/22/2019 7:15	26.91	65.9	4.71	8.3	SR13	7/22/2019 13:15	26.96	62.4	4.54	8.2	SR13	7/22/2019 19:15	26.96	67.7	4.98	8.2
SR13	7/22/2019 1:20	26.48	74.8	5.63	7.1	SR13	7/22/2019 7:20	26.82	64.4	4.58	7.8	SR13	7/22/2019 13:20	26.97	64.2	4.69	7.9	SR13	7/22/2019 19:20	27.02	65.5	4.72	8.5
SR13	7/22/2019 1:25	26.38	77.7	5.55	7.7	SR13	7/22/2019 7:25	26.82	64.2	4.82	8.5	SR13	7/22/2019 13:25	26.64	64.2	4.86	7.0	SR13	7/22/2019 19:25	26.98	66.6	4.91	7.5
SR13	7/22/2019 1:30	26.41	73.5	5.67	6.7	SR13	7/22/2019 7:30	26.80	63.3	4.60	8.4	SR13	7/22/2019 13:30	26.76	68.1	4.81	8.2	SR13	7/22/2019 19:30	27.01	63.1	4.71	7.5
SR13	7/22/2019 1:35	26.40	76.8	5.77	6.7	SR13	7/22/2019 7:35	26.82	65.6	4.76	7.1	SR13	7/22/2019 13:35	26.81	67.0	5.03	7.5	SR13	7/22/2019 19:35	26.95	67.0	4.69	7.6
SR13	7/22/2019 1:40	26.37	74.9	5.61	6.9	SR13	7/22/2019 7:40	26.75	64.6	4.69	7.7	SR13	7/22/2019 13:40	26.64	69.2	4.86	7.2	SR13	7/22/2019 19:40	26.96	66.6	4.73	7.0
SR13	7/22/2019 1:45	26.26	74.3	5.65	7.1	SR13	7/22/2019 7:45	26.78	64.2	4.70	7.7	SR13	7/22/2019 13:45	26.37	67.9	4.89	7.6	SR13	7/22/2019 19:45	26.90	65.9	4.73	6.9
SR13	7/22/2019 1:50	26.24	77.8	5.81	6.7	SR13	7/22/2019 7:50	26.76	60.2	4.70	7.3	SR13	7/22/2019 13:50	26.30	67.3	4.76	8.3	SR13	7/22/2019 19:50	26.90	65.3	4.98	7.1
SR13	7/22/2019 1:55	26.22	74.5	5.47	8.3	SR13	7/22/2019 7:55	26.76	65.0	4.78	6.9	SR13	7/22/2019 13:55	26.24	69.5	4.89	8.2	SR13	7/22/2019 19:55	26.97	67.3	4.65	6.9
SR13	7/22/2019 2:00	26.20	77.2	5.72	7.3	SR13	7/22/2019 8:00	26.96	63.8	4.86	7.1	SR13	7/22/2019 14:00	26.27	68.0	4.92	8.2	SR13	7/22/2019 20:00	26.94	65.9	4.91	7.4
SR13	7/22/2019 2:05	26.24	77.8	5.78	7.9	SR13	7/22/2019 8:05	26.82	65.5	4.70	6.7	SR13	7/22/2019 14:05	26.25	68.3	4.87	7.2	SR13	7/22/2019 20:05	26.97	64.0	4.93	8.3
SR13	7/22/2019 2:10	26.15	71.7	5.44	7.4	SR13	7/22/2019 8:10	26.70	62.0	4.76	6.8	SR13	7/22/2019 14:10	26.25	68.8	4.83	7.7	SR13	7/22/2019 20:10	26.91	64.7	4.61	7.8
SR13	7/22/2019 2:15	26.19	69.6	4.98	7.7	SR13	7/22/2019 8:15	26.68	65.8	4.94	7.4	SR13	7/22/2019 14:15	26.24	66.8	4.90	7.7	SR13	7/22/2019 20:15	26.87	63.6	4.87	7.8
SR13	7/22/2019 2:20	26.19	69.6	4.88	8.5	SR13	7/22/2019 8:20	26.71	62.0	4.92	7.0	SR13	7/22/2019 14:20	26.24	69.9	4.80	8.0	SR13	7/22/2019 20:20	26.86	63.5	4.92	7.7
SR13	7/22/2019 2:25	26.22	64.2	4.81	7.9	SR13	7/22/2019 8:25	26.71	64.7	4.67	7.6	SR13	7/22/2019 14:25	26.23	69.3	5.05	7.4	SR13	7/22/2019 20:25	26.89	65.1	4.76	7.0
SR13	7/22/2019 2:30	26.19	66.0	4.69	7.0	SR13	7/22/2019 8:30	26.94	61.4	4.57	7.8	SR13	7/22/2019 14:30	26.27	69.1	5.07	8.2	SR13	7/22/2019 20:30	26.88	67.0	4.73	6.5
SR13	7/22/2019 2:35	26.05	68.4	4.79	7.7	SR13	7/22/2019 8:35	27.03	60.4	4.92	6.5	SR13	7/22/2019 14:35	26.26	69.1	4.84	7.2	SR13	7/22/2019 20:35	26.90	67.6	5.22	7.4
SR13	7/22/2019 2:40	26.12	66.5	4.86	7.4	SR13	7/22/2019 8:40	27.00	63.9	4.83	7.1	SR13	7/22/2019 14:40	26.26	70.1	5.03	7.7	SR13	7/22/2019 20:40	26.97	69.3	5.21	7.4
SR13	7/22/2019 2:45	26.19	65.5	4.97	8.0	SR13	7/22/2019 8:45	27.23	63.7	4.61	7.9	SR13	7/22/2019 14:45	26.25	68.6	5.18	8.0	SR13	7/22/2019 20:45	26.99	73.1	5.23	7.8
SR13	7/22/2019 2:50	26.21	66.3	4.77	7.7	SR13	7/22/2019 8:50	27.16	60.2	4.85	7.1	SR13	7/22/2019 14:50	26.27	66.4	5.16	7.2	SR13	7/22/2019 20:50	26.96	71.5	5.21	7.2
SR13	7/22/2019 2:55	26.27	66.3	4.91	7.7	SR13	7/22/2019 8:55	27.28	63.1	4.91	7.5	SR13	7/22/2019 14:55	26.27	72.9	5.06	8.1	SR13	7/22/2019 20:55	26.99	72.6	5.20	7.8
SR13	7/22/2019 3:00	26.94	66.6	4.67	7.8	SR13	7/22/2019 9:00	27.39	66.9	4.90	7.6	SR13	7/22/2019 15:00	26.28	70.1	5.07	7.4	SR13	7/22/2019 21:00	26.94	71.4	5.00	6.8
SR13	7/22/2019 3:05	26.83	68.4	4.67	7.6	SR13	7/22/2019 9:05	27.15	63.2	4.87	6.5	SR13	7/22/2019 15:05	26.26	69.3	4.90	8.1	SR13	7/22/2019 21:05	27.03	69.3	5.25	7.6
SR13	7/22/2019 3:10	26.87	63.5	4.62	7.7	SR13	7/22/2019 9:10	27.35	63.5	4.97	7.1	SR13	7/22/2019 15:10	26.28	66.9	4.99	7.7	SR13	7/22/2019 21:10	27.06	68.1	4.90	7.6
SR13	7/22/2019 3:15	26.81	64.2	4.83	8.3	SR13	7/22/2019 9:15	27.26	62.4	4.64	7.2	SR13	7/22/2019 15:15	26.28	69.7	5.02	7.7	SR13	7/22/2019 21:15	27.07	70.6	5.07	7.4
SR13	7/22/2019 3:20	26.92	68.6	5.02	7.7	SR13	7/22/2019 9:20	27.45	63.9	4.71	6.6	SR13	7/22/2019 15:20	26.30	66.4	4.81	7.9	SR13	7/22/2019 21:20	27.17	66.1	4.83	7.6
SR13	7/22/2019 3:25	26.96	66.6	4.86	7.9	SR13	7/22/2019 9:25	27.26	64.5	4.67	7.3	SR13	7/22/2019 15:25	26.29	66.7	4.83	7.9	SR13	7/22/2019 21:25	26.98	68.7	4.86	6.9
SR13	7/22/2019 3:30	26.88	64.4	4.90	8.4	SR13	7/22/2019 9:30	27.37	62.9	4.73	7.2	SR13						SR13	7/22/2019 21:30	27.00	65.9	5.06	7.9
SR13	7/22/2019 3:35	26.87	64.7	4.77	8.0	SR13	7/22/2019 9:35	27.18	63.9	4.55	6.4	SR13						SR13	7/22/2019 21:35	27.13	67.4	4.87	7.7
SR13	7/22/2019 3:40	26.85	68.2	4.63	7.9	SR13	7/22/2019 9:40	27.27	62.9	4.89	6.5	SR13						SR13	7/22/2019 21:40	27.08	69.3	4.92	8.0
SR13	7/22/2019 3:45	26.78	65.3	4.67	7.3	SR13	7/22/2019 9:45	27.20	66.1	4.68	7.7	SR13						SR13	7/22/2019 21:45	27.16	67.0	5.12	7.3
SR13	7/22/2019 3:50	26.74	65.2	4.63	8.4	SR13	7/22/2019 9:50	27.25	65.7	4.71	6.6	SR13	7/22/2019 15:50	26.32	66.4	4.82	8.5	SR13	7/22/2019 21:50	27.21	66.3	4.92	7.1
SR13	7/22/2019 3:55	26.69	66.9	4.77																			

24-hr Water Quality Monitoring

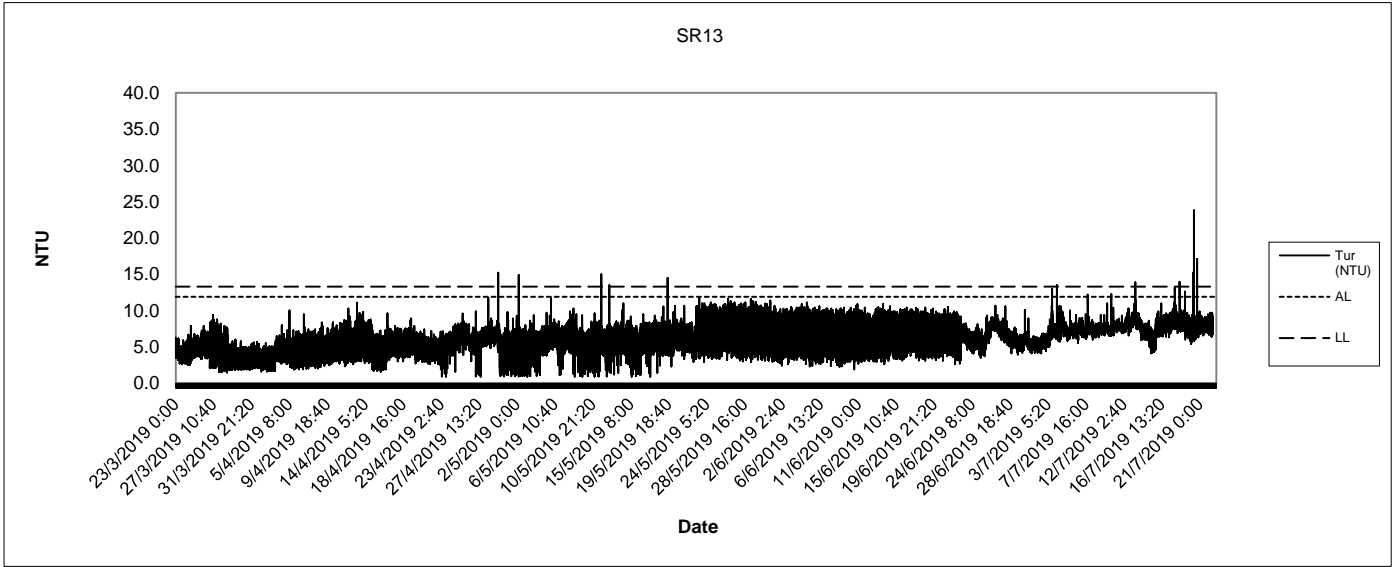
Station	Timestamp	NH <sub>3</sub> (mg/L)				Station	Timestamp	NH <sub>3</sub> (mg/L)			
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SR4	7/22/2019 0:37	0.32				SR12	7/22/2019 0:37	0.32			
SR4	7/22/2019 0:57	0.35				SR12	7/22/2019 0:57	0.31			
SR4	7/22/2019 1:17	0.32				SR12	7/22/2019 1:17	0.30			
SR4	7/22/2019 1:37	0.33				SR12	7/22/2019 1:37	0.29			
SR4	7/22/2019 1:57	0.33				SR12	7/22/2019 1:57	0.28			
SR4	7/22/2019 2:17	0.32				SR12	7/22/2019 2:17	0.29			
SR4	7/22/2019 2:37	0.32				SR12	7/22/2019 2:37	0.29			
SR4	7/22/2019 2:57	0.30				SR12	7/22/2019 2:57	0.28			
SR4	7/22/2019 3:17	0.31				SR12	7/22/2019 3:17	0.28			
SR4	7/22/2019 3:37	0.31				SR12	7/22/2019 3:37	0.30			
SR4	7/22/2019 3:57	0.32				SR12	7/22/2019 3:57	0.28			
SR4	7/22/2019 4:17	0.31				SR12	7/22/2019 4:17	0.30			
SR4	7/22/2019 4:37	0.32				SR12	7/22/2019 4:37	0.28			
SR4	7/22/2019 4:57	0.31				SR12	7/22/2019 4:57	0.30			
SR4	7/22/2019 5:17	0.31				SR12	7/22/2019 5:17	0.30			
SR4	7/22/2019 5:37	0.31				SR12	7/22/2019 5:37	0.29			
SR4	7/22/2019 5:57	0.31				SR12	7/22/2019 5:57	0.30			
SR4						SR12					
SR4	7/22/2019 6:37	0.31				SR12	7/22/2019 6:37	0.30			
SR4	7/22/2019 6:57	0.31				SR12	7/22/2019 6:57	0.30			
SR4	7/22/2019 7:17	0.31				SR12	7/22/2019 7:17	0.28			
SR4	7/22/2019 7:37	0.32				SR12	7/22/2019 7:37	0.30			
SR4	7/22/2019 7:57	0.32				SR12	7/22/2019 7:57	0.28			
SR4	7/22/2019 8:17	0.32				SR12	7/22/2019 8:17	0.28			
SR4	7/22/2019 8:37	0.31				SR12	7/22/2019 8:37	0.29			
SR4	7/22/2019 8:57	0.32				SR12	7/22/2019 8:57	0.28			
SR4	7/22/2019 9:17	0.32				SR12	7/22/2019 9:17	0.26			
SR4	7/22/2019 9:37	0.30				SR12	7/22/2019 9:37	0.28			
SR4	7/22/2019 9:57	0.28				SR12	7/22/2019 9:57	0.27			
SR4	7/22/2019 10:17	0.27				SR12					
SR4	7/22/2019 10:37	0.29				SR12					
SR4	7/22/2019 10:57	0.28				SR12					
SR4	7/22/2019 11:17	0.30				SR12					
SR4	7/22/2019 11:37	0.28				SR12	7/22/2019 11:37	0.28			
SR4	7/22/2019 11:57	0.28				SR12	7/22/2019 11:57	0.27			
SR4						SR12	7/22/2019 12:17	0.27			
SR4						SR12	7/22/2019 12:37	0.27			
SR4						SR12	7/22/2019 12:57	0.26			
SR4						SR12	7/22/2019 13:17	0.28			
SR4						SR12	7/22/2019 13:37	0.27			
SR4	7/22/2019 13:57	0.30				SR12	7/22/2019 13:57	0.28			
SR4	7/22/2019 14:17	0.29				SR12	7/22/2019 14:17	0.28			
SR4	7/22/2019 14:37	0.27				SR12	7/22/2019 14:37	0.27			
SR4	7/22/2019 14:57	0.29				SR12	7/22/2019 14:57	0.26			
SR4	7/22/2019 15:17	0.28				SR12	7/22/2019 15:17	0.26			
SR4	7/22/2019 15:37	0.30				SR12	7/22/2019 15:37	0.27			
SR4	7/22/2019 15:57	0.30				SR12	7/22/2019 15:57	0.28			
SR4	7/22/2019 16:17	0.30				SR12	7/22/2019 16:17	0.27			
SR4	7/22/2019 16:37	0.27				SR12	7/22/2019 16:37	0.26			
SR4	7/22/2019 16:57	0.27				SR12	7/22/2019 16:57	0.25			
SR4	7/22/2019 17:17	0.26				SR12	7/22/2019 17:17	0.25			
SR4	7/22/2019 17:37	0.25				SR12	7/22/2019 17:37	0.25			
SR4	7/22/2019 17:57	0.25				SR12	7/22/2019 17:57	0.25			
SR4	7/22/2019 18:17	0.26				SR12	7/22/2019 18:17	0.25			
SR4	7/22/2019 18:37	0.26				SR12	7/22/2019 18:37	0.25			
SR4	7/22/2019 18:57	0.27				SR12	7/22/2019 18:57	0.27			
SR4	7/22/2019 19:17	0.25				SR12	7/22/2019 19:17	0.27			
SR4	7/22/2019 19:37	0.25				SR12	7/22/2019 19:37	0.26			
SR4	7/22/2019 19:57	0.25				SR12	7/22/2019 19:57	0.26			
SR4	7/22/2019 20:17	0.25				SR12	7/22/2019 20:17	0.26			
SR4	7/22/2019 20:37	0.26				SR12	7/22/2019 20:37	0.25			
SR4	7/22/2019 20:57	0.26				SR12	7/22/2019 20:57	0.26			
SR4	7/22/2019 21:17	0.25				SR12	7/22/2019 21:17	0.25			
SR4	7/22/2019 21:37	0.27				SR12	7/22/2019 21:37	0.27			
SR4	7/22/2019 21:57	0.25				SR12	7/22/2019 21:57	0.26			
SR4	7/22/2019 22:17	0.26				SR12	7/22/2019 22:17	0.26			
SR4	7/22/2019 22:37	0.26				SR12	7/22/2019 22:37	0.25			
SR4	7/22/2019 22:57	0.26				SR12	7/22/2019 22:57	0.25			
SR4	7/22/2019 23:17	0.26				SR12	7/22/2019 23:17	0.26			
SR4	7/22/2019 23:37	0.26				SR12	7/22/2019 23:37	0.26			
SR4	7/22/2019 23:57	0.26				SR12	7/22/2019 23:57	0.26			

Remark: Fonts with underline: Action Level Exceedance  
**Fonts in Bold with underline: Limit Level Exceedance**  
 Automatic Instrument calibration of NH<sub>3</sub>-N monitor was carried out during 5:57-6:37 at SR4 and SR12.  
 SR4 monitoring station was under maintenance during 12:16-13:26.  
 SR12 monitoring station was under maintenance during 10:06-11:16.  
 SR13 monitoring station was under maintenance during 15:25-15:50.

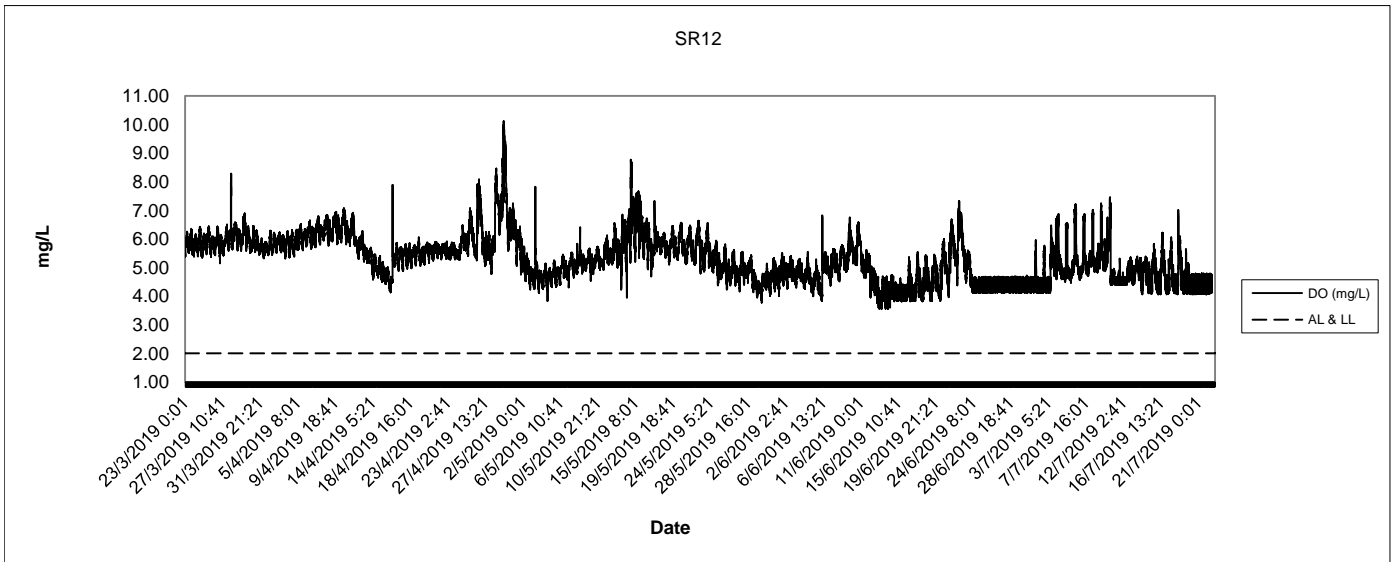
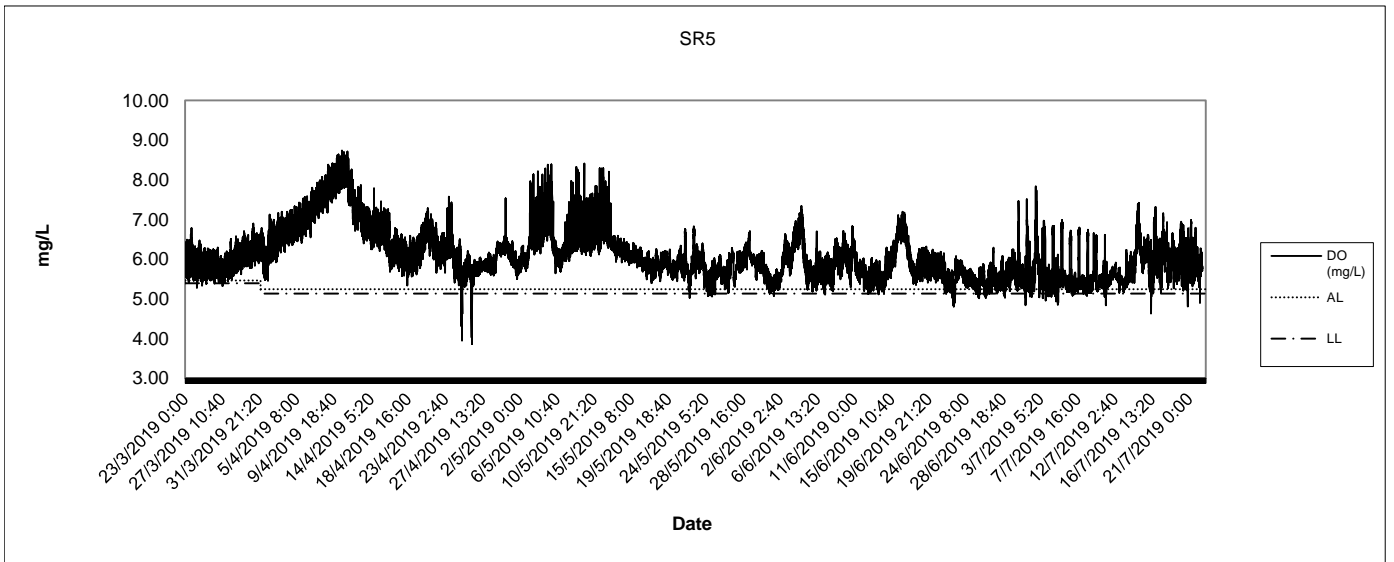
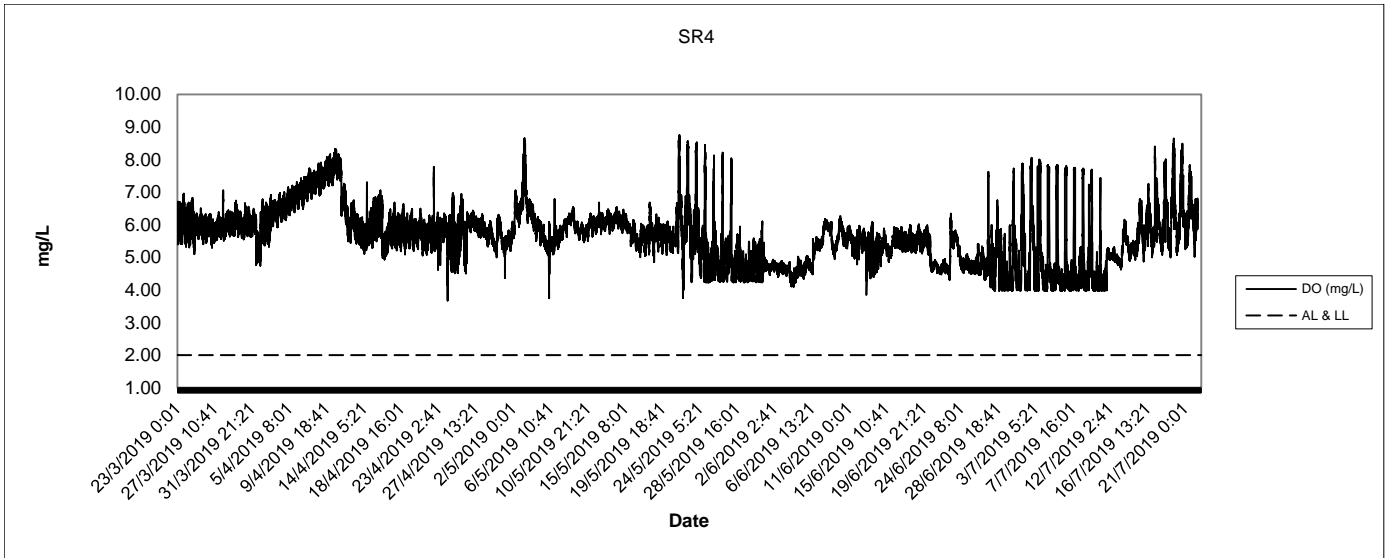
### Turbidity 24-hr Water Quality Monitoring



# Turbidity 24-hr Water Quality Monitoring

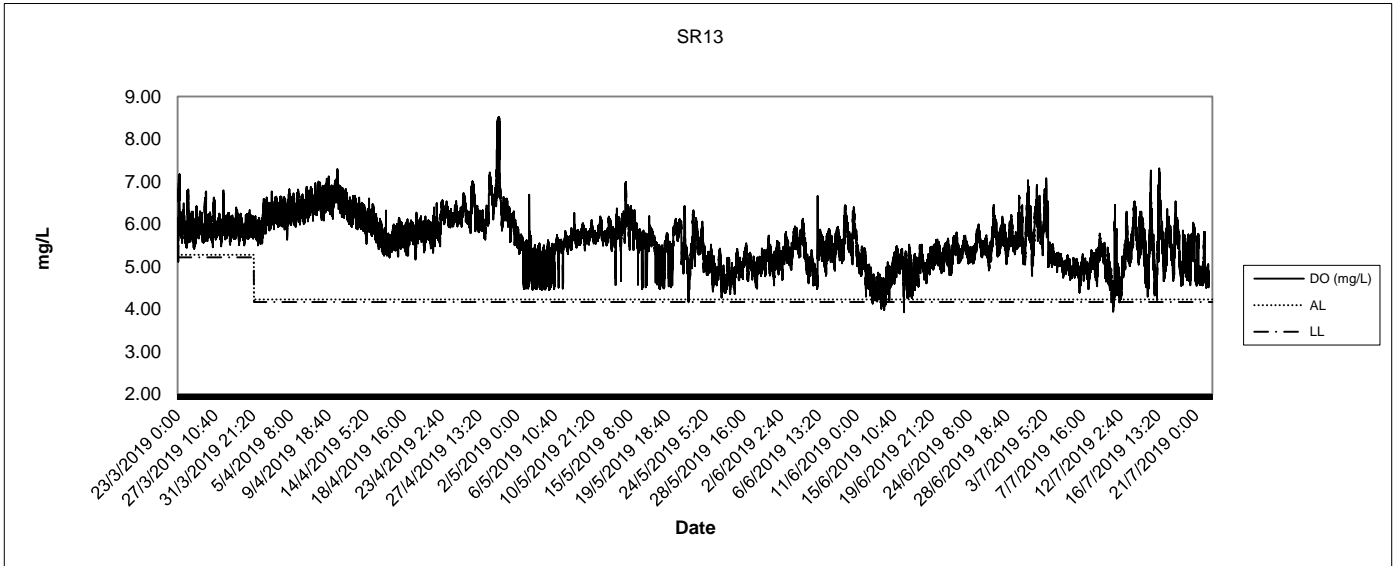


### Dissolved Oxygen 24-hr Water Quality Monitoring

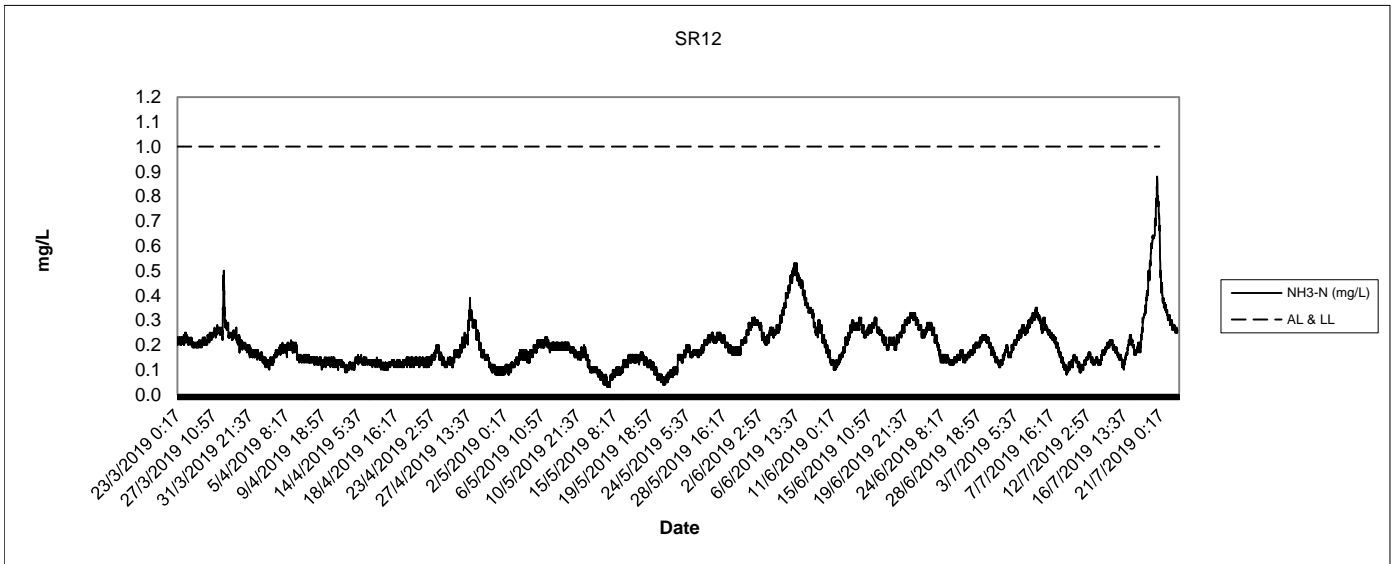
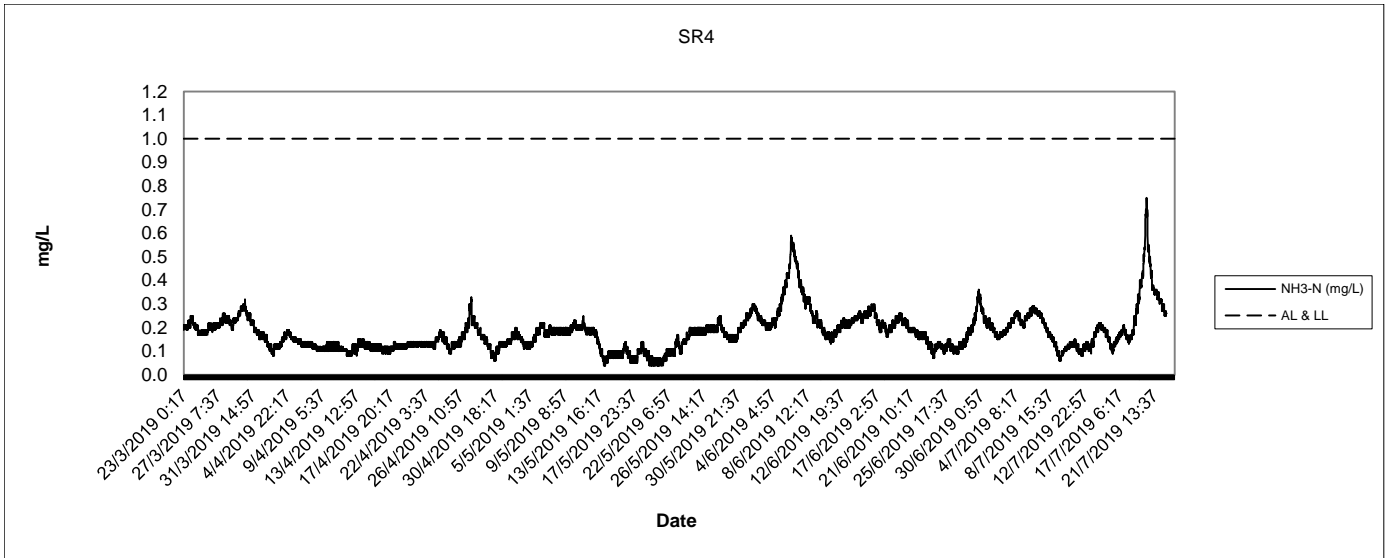




### Dissolved Oxygen 24-hr Water Quality Monitoring



Ammonia-N  
24-hr Water Quality Monitoring



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Report No.: 0394/13/ED/0380A

### Appendix H Event and Action Plans

## Typical Event and Action Plan for Water Quality for Construction Phase

Event	Action			
	ET Leader	IEC	ER	Contractor
Action Level				
Exceedance for one sample	<ol style="list-style-type: none"> <li>1. Repeat in-situ measurement to confirm finding;</li> <li>2. Identify source(s) of impact;</li> <li>3. Inform IEC and Contractor;</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Discuss mitigation measures with IEC and Contractor; and</li> <li>6. Repeat measurement on next day of exceedance.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET and Contractor on the mitigation measures;</li> <li>2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; and</li> <li>3. Assess the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with IEC on the proposed mitigation measures; and</li> <li>2. Make agreement on the mitigation measures to be implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the ER and confirm notification of the non-compliance in writing;</li> <li>2. Rectify unacceptable practice;</li> <li>3. Check all plant and equipment;</li> <li>4. Consider changes of working methods;</li> <li>5. Discuss with ET and IEC and propose mitigation measures to IEC and ER; and</li> <li>6. Implement the agreed mitigation measures.</li> </ol>
Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> <li>1. Repeat in-situ measurement to confirm finding;</li> <li>2. Identify source(s) of impact;</li> <li>3. Inform IEC and Contractor;</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Discuss mitigation measures with IEC and Contractor;</li> <li>6. Ensure mitigation measures are implemented;</li> <li>7. Prepare to increase the monitoring frequency to daily; and</li> <li>8. Repeat measurement on next day of exceedance.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET and Contractor on the mitigation measures;</li> <li>2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; and</li> <li>3. Assess the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with IEC on the proposed mitigation measures;</li> <li>2. Make agreement on the mitigation measures to be implemented; and</li> <li>3. Assess the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the ER and confirm notification of the non-compliance in writing;</li> <li>2. Rectify unacceptable practice;</li> <li>3. Check all plant and equipment;</li> <li>4. Consider changes of working methods;</li> <li>5. Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days; and</li> <li>6. Implement the agreed mitigation measures.</li> </ol>
Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> <li>1. Repeat in-situ measurement to confirm finding;</li> <li>2. Identify source(s) of impact;</li> <li>3. Inform IEC and Contractor;</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Discuss mitigation measures with IEC and Contractor;</li> <li>6. Ensure mitigation measures are implemented;</li> <li>7. Prepare to increase the monitoring frequency to daily; and</li> <li>8. Repeat measurement on next day of exceedance.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET and Contractor on the mitigation measures;</li> <li>2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; and</li> <li>3. Assess the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with IEC on the proposed mitigation measures;</li> <li>2. Make agreement on the mitigation measures to be implemented; and</li> <li>3. Assess the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the ER and confirm notification of the non-compliance in writing;</li> <li>2. Rectify unacceptable practice;</li> <li>3. Check all plant and equipment;</li> <li>4. Consider changes of working methods;</li> <li>5. Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days; and</li> <li>6. Implement the agreed mitigation measures.</li> </ol>
Limit Level				
Exceedance for one sample	<ol style="list-style-type: none"> <li>1. Repeat in-situ measurement to confirm finding;</li> <li>2. Identify source(s) of impact;</li> <li>3. Inform IEC, Contractor and EPD, if the exceedance is recorded at Fish Culture Zone, AFCD should be informed. If the exceedance is recorded at WSD Flushing Water intakes, WSD should be informed;</li> <li>4. Check monitoring data, all plant, equipment</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET and Contractor on the mitigation measures;</li> <li>2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; and</li> <li>3. Assess the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; and</li> <li>2. Request Contractor to critically review the working methods;</li> <li>3. Make agreement on the mitigation measures to be implemented; and</li> <li>4. Assess the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inform the ER and confirm notification of the non-compliance in writing;</li> <li>2. Rectify unacceptable practice;</li> <li>3. Check all plant and equipment;</li> <li>4. Consider changes of working methods;</li> <li>5. Discuss with ET and IEC and ER and propose mitigation measures to IEC and ER within 3 working days; and</li> <li>6. Implement the agreed mitigation measures.</li> </ol>

Event	Action			
	ET Leader	IEC	ER	Contractor
	<p>and Contractor's working methods;</p> <p>5. Discuss mitigation measures with IEC, ER and Contractor;</p> <p>6. Ensure mitigation measures are implemented; and</p> <p>7. Increase the monitoring frequency to daily until no exceedance of Limit level.</p>			
Exceedance for two or more consecutive samples	<p>1. Repeat in-situ measurement to confirm finding;</p> <p>2. Identify source(s) of impact;</p> <p>3. Inform IEC, Contractor and EPD, if the exceedance is recorded at Fish Culture Zone, AFCD should be informed. If the exceedance is recorded at WSD Flushing Water intakes, WSD should be informed;</p> <p>4. Check monitoring data, all plant, equipment and Contractor's working methods;</p> <p>5. Discuss mitigation measures with IEC, ER and Contractor;</p> <p>6. Ensure mitigation measures are implemented; and</p> <p>7. Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days.</p>	<p>1. Discuss with ET and Contractor on the mitigation measures;</p> <p>2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; and</p> <p>3. Assess the effectiveness of the implemented mitigation measures.</p>	<p>1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; and</p> <p>2. Request Contractor to critically review the working methods;</p> <p>3. Make agreement on the mitigation measures to be implemented;</p> <p>4. Assess the effectiveness of the implemented mitigation measures; and</p> <p>5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit Level.</p>	<p>1. Inform the ER and confirm notification of the non-compliance in writing;</p> <p>2. Rectify unacceptable practice;</p> <p>3. Check all plant and equipment;</p> <p>4. Consider changes of working methods;</p> <p>5. Discuss with ET and IEC and ER and propose mitigation measures to IEC and ER within 3 working days;</p> <p>6. Implement the agreed mitigation measures; and</p> <p>7. As directed by the ER, to slow down or to stop all or part of the marine work or construction activities.</p>

## Event and Action Plan for 24-hour Water Quality Monitoring

Event	Action			
	ET Leader	Contractor	ER	IEC
Action Level				
On Action Level exceedance of turbidity or DO (mg/L) (over a period of 30-minute), or exceedance of ammonia (mg/L) (over a period of 60-minute). Notification is sent to ET, Contractor, ER, EPD, AFCD and WSD automatically via email	<ol style="list-style-type: none"> <li>1. Check data and determine if the exceedance was due to equipment problem. If so, fix the problem within 1 working day. Continue monitoring</li> <li>2. Carry out investigation as soon as possible after identification of exceedance. Check monitoring data (including data from regular water quality), all plant, equipment and Contractor's working methods;</li> <li>3. Report the initial investigation results to the Contractor within 24 hours of identification of exceedance. Advise contractor if exceedance may be due to contractor's construction works.</li> <li>4. Conduct water quality monitoring at the mariculture/ WSD flushing water intake station with exceedance recorded and gradient stations in vicinity within 18 hours of identification of exceedance if the exceedance may be due to the works. Parameters to monitor include DO (mg/L), turbidity and SS.</li> <li>5. Report the monitoring data to the Contractor within 48 hours of identification of exceedance. Advise contractor if exceedance is due to contractor's construction works.</li> <li>6. Discuss mitigation measures with IEC, ER and Contractor within 2 working days of submission of the investigation results.</li> <li>7. Ensure mitigation measures are implemented;</li> <li>8. Closely monitor the concerned 24-hr station.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check all plant and equipment;</li> <li>2. Consider changes of working methods;</li> <li>3. Rectify unacceptable practice;</li> <li>4. Submit the monitoring data and results of the investigation to IEC and ER within 48 hours of the identification of an exceedance Inform EPD, AFCD and WSD of the results;</li> <li>5. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 2 working days of submission of the investigation results;</li> <li>6. Implement the agreed mitigation measures within reasonable time scale</li> </ol>	<ol style="list-style-type: none"> <li>1. Request Contractor to critically review the working methods;</li> <li>2. Discuss with IEC, ET and Contractor on the proposed mitigation measures;</li> <li>3. Ensure remedial measures are properly implemented</li> <li>4. Assess the effectiveness of the implemented mitigation measures</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET</li> <li>2. Confirm ET assessment if exceedance is due /not due to the works</li> <li>3. Discuss with ET, ER and Contractor on the mitigation measures</li> <li>4. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly</li> <li>5. Assess the effectiveness of the implemented mitigation measures</li> </ol>
Limit Level				
On Limit Level exceedance of turbidity or DO (mg/L) (over a period of 30-minute or exceedance of ammonia (mg/L) (over a period of 60-minute). Notification is sent to ET, Contractor, ER, EPD, AFCD and	<ol style="list-style-type: none"> <li>1. Check data and determine if the exceedance was due to equipment problem. If so, fix the problem within 1 working day. Continue monitoring</li> <li>2. Carry out investigation as soon as possible after identification of exceedance. Check monitoring data (including data from regular water quality), all plant, equipment and Contractor's working methods;</li> </ol>	<ol style="list-style-type: none"> <li>1. Check all plant and equipment;</li> <li>2. Consider changes of working methods;</li> <li>3. Rectify unacceptable practice;</li> <li>4. Submit the monitoring data and results of the investigation to IEC and ER within 48 hours of the identification of an exceedance Inform EPD, AFCD and WSD of the results;</li> <li>5. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within</li> </ol>	<ol style="list-style-type: none"> <li>1. Request Contractor to critically review the working methods;</li> <li>2. Discuss with IEC, ET and Contractor on the proposed mitigation measures;</li> <li>3. Ensure remedial measures are properly implemented</li> <li>4. Assess the effectiveness of the implemented mitigation measures;</li> <li>5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET</li> <li>2. Confirm ET assessment if exceedance is due /not due to the works</li> <li>3. Discuss with ET, ER and Contractor on the mitigation measures</li> <li>4. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly</li> <li>5. Assess the effectiveness of the implemented mitigation measures</li> </ol>

Event	Action			
	ET Leader	Contractor	ER	IEC
WSD automatically via email	<p>3. Report the initial investigation results to the Contractor within 24 hours of identification of exceedance. Advise contractor if exceedance may be due to contractor's construction works.</p> <p>4. Conduct water quality monitoring at the all monitoring stations within 18 hours of identification of exceedance if the exceedance may be due to the works. Parameters to monitor include DO (mg/L), turbidity and SS.</p> <p>5. Report the monitoring data to the Contractor within 48 hours of identification of exceedance. Advise contractor if exceedance is due to contractor's construction works.</p> <p>6. Discuss mitigation measures with IEC, ER and Contractor within 2 working days of submission of the investigation results.</p> <p>7. Ensure mitigation measures are implemented;</p> <p>8. Closely monitor the concerned 24-hr station.</p>	<p>2 working days of submission of the investigation results;</p> <p>6. Implement the agreed mitigation measures within reasonable time scale;</p> <p>7. As directed by ER, to slow down or stop all or part of the marine work or construction activities.</p>	<p>part of the marine work until no exceedance of Limit Level.</p>	

## FUGRO TECHNICAL SERVICES LIMITED

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Report No.: 0394/13/ED/0380A

### Appendix I Details of Notification of Exceedances



# FUGRO TECHNICAL SERVICES LIMITED

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Report No.: 0394/13/ED/0380A

Routine Impact Monitoring

**MATERIALAB CONSULTANTS LIMITED**

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190625 /IM/SR5							
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel							
Date:	25/06/2019							
Time: (hh:mm)	Mid-Flood:	13:18	Mid-Ebb:	14:14				
Monitoring Location:	SR5 -- Ma Wan FCZ							
Action Level / Limit Level:	DO (S&M):	5/5 mg/L;	Turbidity:	10.8/15.0 NTU;				
	DO (B):	4.11/4.04 mg/L;	TIN	0.45/0.50 (wet season) or 0.38/0.39 (dry season) mg/L				
	TSS	: 12 / 19 mg/L.		/ mg/L				
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:		Mid-Ebb:					
	DO (S&M):	AL / LL	DO (B):	AL / LL	DO (S&M):	AL / LL	DO (B):	AL / LL
	Turbidity:	AL / LL	TIN (In-situ):	1.10 AL / LL	Turbidity:	AL / LL	TIN (In-situ):	1.10 AL / LL
	TIN (Lab):	1.02 AL / LL	TSS :	AL / LL	TIN (Lab):	1.00 AL / LL	TSS :	AL / LL
Action taken / to be taken: (tick / fill in as appropriate)	Inspection: <input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____							
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)		DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)		
	Findings / Evidences							
	<input type="checkbox"/> Station at Upstream Location at ME							
	<input type="checkbox"/> Upstream Control Station (or gradient station) exceeded AL/LL							
	<input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF	Upstream: _____ ( ) mg/L	Upstream: _____ ( ) mg/L	Upstream: _____ ( ) NTU	Upstream: _____ ( ) mg/L			
	Downstream: _____ ( ) mg/L	Downstream: _____ ( ) mg/L	Downstream: _____ ( ) NTU	Downstream: _____ ( ) mg/L				
<input checked="" type="checkbox"/> No Dredging Works carried out.								
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.				✓	✓		
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done. Mid-Flood: DO (S&M): _____ DO (B): _____ Turbidity: _____ TIN: 1.10 Mid-Ebb: DO (S&M): _____ DO (B): _____ Turbidity: _____ TIN: 1.10 <input type="checkbox"/> _____ _____ _____ _____							

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	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
Others					

Prepared by: James Lam

Signature:

Date (dd/mm/yyyy): 06/08/2019

Certified by: Colln Yung

Designation: Environmental Team Leader

Signature:

Date (dd/mm/yy): 06/08/2019

**Notes:**

- Abbreviation:

AL – Action Level

DO (B) – Dissolved Oxygen (Bottom)

DO (S&M) – Dissolved Oxygen (Surface & Middle)

LL – Limit Level

ME – Mid Ebb

MF – Mid Flood

NH3-N (In-situ) – Ammoniacal Nitrogen (In-situ results)

NH3-N (Lab) – Ammoniacal Nitrogen (Laboratory results)

TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)

TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)

TSS – Total Suspended Solids

- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190627 /IM/SR5					
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel					
Date:	27/06/2019					
Time: (hh:mm)	Mid-Flood: 11:39		Mid-Ebb: 10:38			
Monitoring Location:	SR5 - Ma Wan FCZ					
Action Level / Limit Level:	DO (S&M): 5/5 mg/L;	Turbidity: 10.8/15.0 NTU;				
	DO (B): 4.11/4.04 mg/L;	TIN 0.45/0.50(wet season) or 0.36/0.39(dry season)mg/L				
	TSS : 12 / 19 mg/L.	:	/ mg/L			
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:		Mid-Ebb:			
	DO (S&M): AL / LL	DO (B): AL / LL	DO (S&M): AL / LL	DO (B): AL / LL		
	Turbidity: AL / LL	TIN(In-situ): 0.93 AL / (L)	Turbidity: AL / LL	TIN(In-situ): 0.83 AL / (L)		
	TIN(Lab): 0.90 AL / (L)	TSS : AL / LL	TIN(Lab): 0.82 AL / (L)	TSS : AL / LL		
Action taken / to be taken: (tick / fill in as appropriate)	Inspection:					
	<input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____					
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)	Findings / Evidences					
	<input type="checkbox"/> Station at Upstream Location at ME	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
	<input type="checkbox"/> Upstream Control Station (or gradient station) exceeded AL/LL					
	<input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF	Upstream:	Upstream:	Upstream:	Upstream:	
		( ) mg/L	( ) mg/L	( ) NTU	( ) mg/L	
<input checked="" type="checkbox"/> No Dredging Works carried out.	Downstream:	Downstream:	Downstream:	Downstream:		
	( ) mg/L	( ) mg/L	( ) NTU	( ) mg/L		
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.			✓	✓	
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.					
	Mid-Flood:	DO (S&M):	DO (B):	Turbidity:		
	TIN:	0.93	:	:		
	Mid-Ebb:	DO (S&M):	DO (B):	Turbidity:		
	TIN:	0.83	:	:		
	<input type="checkbox"/> _____					
	_____					
	_____					
	_____					

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	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
Others					

Prepared by: James Lam

Signature:

Date (dd/mm/yyyy): 06/08/2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature:

Date (dd/mm/yy): 06/08/2019

**Notes:**

- Abbreviation:
- AL -- Action Level
- DO (B) -- Dissolved Oxygen (Bottom)
- DO (S&M) -- Dissolved Oxygen (Surface & Middle)
- LL -- Limit Level
- ME -- Mid Ebb
- MF -- Mid Flood
- NH3-N (In-situ) -- Ammoniacal Nitrogen (In-situ results)
- NH3-N (Lab) -- Ammoniacal Nitrogen (Laboratory results)
- TIN (In-situ) -- Total Inorganic Nitrogen (In-situ results)
- TIN (Lab) -- Total Inorganic Nitrogen (Laboratory results)
- TSS -- Total Suspended Solids
- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190629 /IM/SR2																																													
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel																																													
Date:	29/06/2019																																													
Time: (hh:mm)	Mid-Flood: 15:04		Mid-Ebb: 12:10																																											
Monitoring Location:	SR2 - Casam, Gazetted Beach																																													
Action Level / Limit Level:	DO (S&M): 4.68/4.62 mg/L; DO (B): 4.11/4.04 mg/L; TSS : 12/19 mg/L		NH3-N: 0.21/0.24 mg/L ; Turbidity: 10.8/15.0 NTU; mg/L																																											
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:		Mid-Ebb:																																											
	DO (S&M): AL / LL	DO (B): AL / LL	DO (S&M): AL / LL	DO (B): AL / LL	NH3-N (In-situ): 0.33 AL / LL																																									
Action taken / to be taken: (tick / fill in as appropriate)	Inspection: <input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____																																													
	Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)	<table border="1"> <thead> <tr> <th></th> <th>DO(S&amp;M)</th> <th>DO(B)</th> <th>Turbidity</th> <th>NH3-N (In-situ)</th> <th>NH3-N (Lab)</th> </tr> </thead> <tbody> <tr> <td colspan="6" style="text-align: center;">Findings / Evidences</td> </tr> <tr> <td><input type="checkbox"/> Station at Upstream Location at ME</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> Upstream Control Station ( ) exceeded AL/LL</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td rowspan="2"><input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF</td> <td>Upstream: ( ) mg/L</td> <td>Upstream: ( ) mg/L</td> <td>Upstream: ( ) NTU</td> <td>Upstream: ( ) mg/L</td> <td></td> </tr> <tr> <td>Downstream: ( ) mg/L</td> <td>Downstream: ( ) mg/L</td> <td>Downstream: ( ) NTU</td> <td>Downstream: ( ) mg/L</td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> No Dredging Works carried out.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						DO(S&M)	DO(B)	Turbidity	NH3-N (In-situ)	NH3-N (Lab)	Findings / Evidences						<input type="checkbox"/> Station at Upstream Location at ME						<input type="checkbox"/> Upstream Control Station ( ) exceeded AL/LL						<input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF	Upstream: ( ) mg/L	Upstream: ( ) mg/L	Upstream: ( ) NTU	Upstream: ( ) mg/L		Downstream: ( ) mg/L	Downstream: ( ) mg/L	Downstream: ( ) NTU	Downstream: ( ) mg/L		<input checked="" type="checkbox"/> No Dredging Works carried out.				
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<input type="checkbox"/> Upstream Control Station ( ) exceeded AL/LL																																														
<input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF	Upstream: ( ) mg/L	Upstream: ( ) mg/L	Upstream: ( ) NTU	Upstream: ( ) mg/L																																										
	Downstream: ( ) mg/L	Downstream: ( ) mg/L	Downstream: ( ) NTU	Downstream: ( ) mg/L																																										
<input checked="" type="checkbox"/> No Dredging Works carried out.																																														
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.																																													
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.																																													
	Mid-Flood:	DO (S&M): 0.34	DO (B):	Turbidity:																																										
	Mid-Ebb:	DO (S&M):	DO (B):	Turbidity:																																										
		NH3-N: 0.33																																												

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	DO(S&M)	DO(B)	Turbidity	NH3-N	
Others					

Prepared by: James Lam

Signature:

Date (dd/mm/yyyy): 06/08/2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature:

Date (dd/mm/yy): 06/08/2019

**Notes:**

- Abbreviation:
- AL – Action Level
- DO (B) – Dissolved Oxygen (Bottom)
- DO (S&M) – Dissolved Oxygen (Surface & Middle)
- LL – Limit Level
- ME – Mid Ebb
- MF – Mid Flood
- NH3-N (In-situ) – Ammoniacal Nitrogen (In-situ results)
- NH3-N (Lab) – Ammoniacal Nitrogen (Laboratory results)
- TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)
- TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)
- TSS – Total Suspended Solids
- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190629 /IM/SR3					
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel					
Date:	29/06/2019					
Time: (hh:mm)	Mid-Flood: 15:23		Mid-Ebb: 11:40			
Monitoring Location:	SR3 -Approach, Gazetted Beach					
Action Level / Limit Level:	DO (S&M): 4.68/4.62 mg/L;		NH3-N: 0.21/0.24 mg/L ;			
	DO (B): 4.11/4.04 mg/L;		Turbidity: 10.8/15.0 NTU;			
	TSS : 12/19 mg/L		: / mg/L			
Measured Level of exceeded parameters (tick / fill in / circle as appropriate)	Mid-Flood:			Mid-Ebb:		
	DO (S&M):	AL / LL	DO (B):	AL / LL	DO (S&M):	AL / LL
	Turbidity:	AL / LL	NH3-N(in-situ):	0.34 AL / (L)	Turbidity:	AL / LL
	NH3-N(Lab):	0.33 AL / (L)	TSS :	AL / LL	NH3-N(Lab):	0.32 AL / (L)
Action taken / to be taken: (tick / fill in as appropriate)	Inspection:					
	<input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____					
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)	<input type="checkbox"/> Station at Upstream Location at ME	DO(S&M)	DO(B)	Turbidity	NH3-N (In-situ)	NH3-N (Lab)
	<input type="checkbox"/> Upstream Control Station ( ) exceeded AL/LL					
	<input type="checkbox"/> No Increasing / decreasing (for DO) trend across the Project at MF	Upstream: ( ) mg/L	Upstream: ( ) mg/L	Upstream: ( ) NTU	Upstream: ( ) mg/L	
	<input checked="" type="checkbox"/> No Dredging Works carried out.	Downstream: ( ) mg/L	Downstream: ( ) mg/L	Downstream: ( ) NTU	Downstream: ( ) mg/L	
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.				✓	✓
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.					
	Mid-Flood:	DO (S&M):	DO (B):	Turbidity:		
		NH3-N: 0.34	:	:		
	Mid-Ebb:	DO (S&M):	DO (B):	Turbidity:		
		NH3-N: 0.34	:	:		
	<input type="checkbox"/> _____					
	_____					
	_____					
	_____					



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**Materialab**

	DO(S&M)	DO(B)	Turbidity	NH3-N	
Others					

Prepared by: James LamSignature: Date (dd/mm/yyyy): 06/08/2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature: Date (dd/mm/yy): 06/08/2019**Notes:**

- Abbreviation:

AL – Action Level

DO (B) – Dissolved Oxygen (Bottom)

DO (S&amp;M) – Dissolved Oxygen (Surface &amp; Middle)

LL – Limit Level

ME – Mid Ebb

MF – Mid Flood

NH3-N (In-situ) – Ammoniacal Nitrogen (In-situ results)

NH3-N (Lab) – Ammoniacal Nitrogen (Laboratory results)

TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)

TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)

TSS – Total Suspended Solids

- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190629 /IM/SR5					
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel					
Date:	29/06/2019					
Time: (hh:mm)	Mid-Flood:	14:48	Mid-Ebb:	12:28		
Monitoring Location:	SR5 – Ma Wan FCZ					
Action Level / Limit Level:	DO (S&M):	5/5 mg/L;	Turbidity:	10.8/15.0 NTU;		
	DO (B):	4.11/4.04 mg/L;	TIN	0.45/0.50(wet season) or 0.36/0.39(dry season)mg/L		
	TSS :	12 / 19 mg/L.	:	/	mg/L	
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:			Mid-Ebb:		
	DO (S&M):	AL / LL	DO (B):	AL / LL	DO (S&M):	AL / LL
	Turbidity:	AL / LL	TIN(In-situ):	0.95 AL / (U)	Turbidity:	AL / LL
	TIN(Lab):	0.91 AL / (U)	TSS :	AL / LL	TIN(Lab):	0.91 AL / (U)
Action taken / to be taken: (tick / fill in as appropriate)	Inspection:					
	<input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____					
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)		DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
	Findings / Evidences					
	<input type="checkbox"/> Station at Upstream Location at ME					
	<input type="checkbox"/> Upstream Control Station (or gradient station) exceeded AL/LL					
	<input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF	Upstream: _____ ( ) mg/L	Upstream: _____ ( ) mg/L	Upstream: _____ ( ) NTU	Upstream: _____ ( ) mg/L	
	Downstream: _____ ( ) mg/L	Downstream: _____ ( ) mg/L	Downstream: _____ ( ) NTU	Downstream: _____ ( ) mg/L		
<input checked="" type="checkbox"/> No Dredging Works carried out.						
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.			✓	✓	
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.					
	Mid-Flood:	DO (S&M):	DO (B):	Turbidity:		
	TIN:	0.95				
	Mid-Ebb:	DO (S&M):	DO (B):	Turbidity:		
	TIN:	0.95				
<input type="checkbox"/> _____ _____ _____ _____						

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**MaterialLab**

	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
Others					

Prepared by: James LamSignature: Date (dd/mm/yyyy): 06/08/2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature: Date (dd/mm/yy): 06/08/2019**Notes:**

- Abbreviation:

AL – Action Level

DO (B) – Dissolved Oxygen (Bottom)

DO (S&amp;M) – Dissolved Oxygen (Surface &amp; Middle)

LL – Limit Level

ME – Mid Ebb

MF – Mid Flood

NH<sub>3</sub>-N (In-situ) – Ammoniacal Nitrogen (In-situ results)NH<sub>3</sub>-N (Lab) – Ammoniacal Nitrogen (Laboratory results)

TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)

TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)

TSS – Total Suspended Solids

- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	2019702 /IM/SR3					
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel					
Date:	02/07/2019					
Time: (hh:mm)	Mid-Flood: 16:24		Mid-Ebb: 12:50			
Monitoring Location:	SR3 - Approach, Gazetted Beach					
Action Level / Limit Level:	DO (S&M): 4.68/4.62 mg/L; DO (B): 4.11/4.04 mg/L; TSS : 12/19 mg/L		NH3-N: 0.21/0.24 mg/L ; Turbidity: 10.8/15.0 NTU; UIA : 0.021/0.021 mg/L			
Measured Level of exceeded parameters (tick / fill in / circle as appropriate)	Mid-Flood:			Mid-Ebb:		
	UIA (In-situ): 0.024 AL / (L)	UIA (Lab): _____ AL / LL	UIA (In-situ): _____ AL / LL	UIA (Lab): _____ AL / LL	Turbidity: _____ AL / LL	NH3-N(In-situ): _____ AL / LL
	NH3-N(Lab): _____ AL / LL	TSS : _____ AL / LL	NH3-N(Lab): _____ AL / LL	TSS : _____ AL / LL	NH3-N(Lab): _____ AL / LL	TSS : _____ AL / LL
Action taken / to be taken: (tick / fill in as appropriate)	Inspection: <input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____					
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)	<input type="checkbox"/> Station at Upstream Location at ME	UIA (In-situ):	UIA (Lab):	Turbidity	NH3-N (In-situ)	NH3-N (Lab)
	<input type="checkbox"/> Upstream Control Station ( ) exceeded AL/LL					
	<input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF	Upstream: _____ ( ) mg/L	Upstream: _____ ( ) mg/L	Upstream: _____ ( ) NTU	Upstream: _____ ( ) mg/L	
		Downstream: _____ ( ) mg/L	Downstream: _____ ( ) mg/L	Downstream: _____ ( ) NTU	Downstream: _____ ( ) mg/L	
Conclusion	<input checked="" type="checkbox"/> No Dredging Works carried out.					
	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.	✓				
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.					
	Mid-Flood:	UIA (In-situ): 0.024	DO (B): _____	Turbidity: _____		
	Mid-Ebb:	UIA (In-situ): _____	DO (B): _____	Turbidity: _____		
	<input type="checkbox"/> _____ _____ _____ _____					

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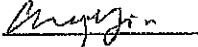
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**MaterialLab**

	DO(S&M)	DO(B)	Turbidity	NH3-N	
Others					

Prepared by: James Lam

Signature: 

Date (dd/mm/yyyy): 06/08/2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature: 

Date (dd/mm/yy): 06/08/2019

**Notes:**

- Abbreviation:

AL – Action Level

DO (B) – Dissolved Oxygen (Bottom)

DO (S&M) – Dissolved Oxygen (Surface & Middle)

LL – Limit Level

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MF – Mid Flood

NH3-N (In-situ) – Ammoniacal Nitrogen (In-situ results)

NH3-N (Lab) – Ammoniacal Nitrogen (Laboratory results)

TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)

TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)

TSS – Total Suspended Solids

- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

**Incident Report on Action Level or Limit Level Non-compliance**

Reference No.:	20190702 /IM/SR4							
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel							
Date:	02/07/2019							
Time: (hh:mm)	Mid-Flood:	16:35	Mid-Ebb:	12:41				
Monitoring Location:	SR4 - Tsuen Wan, WSD Flushing Water Intake							
Action Level / Limit Level:	DO (S&M):	2/2 mg/L;	NH3-N:	<1/<1 mg/L ;				
	DO (B):	2/2 mg/L;	Turbidity:	<10/<10 NTU;				
	Total Suspended Solids :	<10/<10 mg/L	UIA :	0.021/0.021 mg/L				
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:		Mid-Ebb:					
	UIA (In-situ):	0.025 AL / (L)	UIA (Lab):	0.022 AL / (L)	UIA (In-situ):	AL / LL	UIA (Lab):	AL / LL
	Turbidity:	AL / LL	NH3-N(In-situ):	AL / LL	Turbidity:	AL / LL	NH3-N(In-situ):	AL / LL
	E.coli :	AL / LL	TSS :	AL / LL	E.coli :	AL / LL	TSS :	AL / LL
Action taken / to be taken: (tick / fill in as appropriate)	Inspection: <input type="checkbox"/> Silt curtain in proper condition <input checked="" type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____							
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)	UIA (In-situ):		UIA (Lab):		Turbidity	TSS	E.coli	
	Findings / Evidences							
	<input type="checkbox"/> Station at Upstream Location at ME							
	<input type="checkbox"/> Upstream Control Station ( ) exceeded AL/LL							
<input type="checkbox"/> No increasing / decreasing (or <del>decreasing</del> ) trend across the Project at MF	Upstream: ( ) mg/L	Upstream: ( ) mg/L	Upstream: ( ) NTU	Upstream: ( ) mg/L	Downstream: ( ) mg/L	Downstream: ( ) NTU	Downstream: ( ) mg/L	
<input checked="" type="checkbox"/> No Dredging Works carried out.								
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.		✓	✓				
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.							
	Mid-Flood:	UIA (In-situ):	0.025	DO (B):		Turbidity:		
	Mid-Ebb:	UIA (In-situ):		DO (B):		Turbidity:		
		NH3-N:						
		NH3-N:						
	<input type="checkbox"/> _____ _____ _____ _____							

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	DO(S&M)	DO(B)	Turbidity	NH3-N	
Others					

Prepared by: James Lam

Signature:

Date (dd/mm/yyyy): 06/08/2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature:

Date (dd/mm/yy): 06/08/2019

Notes:

- Abbreviation:

AL – Action Level

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ME – Mid Ebb

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NH3-N (Lab) – Ammoniacal Nitrogen (Laboratory results)

TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)

TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)

TSS – Total Suspended Solids

- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
 Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190702 /IM/SR5					
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and Its Approach Channel					
Date:	02/07/2019					
Time: (hh:mm)	Mid-Flood:	15:58	Mid-Ebb:	13:19		
Monitoring Location:	SR5 - Ma Wan FCZ					
Action Level / Limit Level:	DO (S&M):	5/5 mg/L;	Turbidity:	10.8/15.0 NTU;		
	DO (B):	4.11/4.04 mg/L;	TIN	0.45/0.50 (wet season) or 0.36/0.39 (dry season) mg/L		
	TSS	: 12 / 19 mg/L.				
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:		Mid-Ebb:			
	DO (S&M):	AL / LL	DO (B):	AL / LL	DO (S&M):	AL / LL
	Turbidity:	AL / LL	TIN(In-situ):	0.54 AL / LL	Turbidity:	AL / LL
	TIN(Lab):	0.52 AL / LL	TSS :	AL / LL	TIN(Lab):	0.53 AL / LL
Action taken / to be taken: (tick / fill in as appropriate)	Inspection:					
	<input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____					
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)		DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
	Findings / Evidences					
	<input type="checkbox"/> Station at Upstream Location at ME					
	<input type="checkbox"/> Upstream Control Station (or gradient station) exceeded AL/LL					
	<input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF	Upstream: ( ) mg/L	Upstream: ( ) mg/L	Upstream: ( ) NTU	Upstream: ( ) mg/L	
	Downstream: ( ) mg/L	Downstream: ( ) mg/L	Downstream: ( ) NTU	Downstream: ( ) mg/L		
<input checked="" type="checkbox"/> No Dredging Works carried out.						
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.			✓	✓	
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.					
	Mid-Flood:	DO (S&M):	DO (B):	Turbidity:		
	TIN:	0.54				
	Mid-Ebb:	DO (S&M):	DO (B):	Turbidity:		
	TIN:	0.56				
	<input type="checkbox"/> _____ _____ _____ _____					



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	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
Others					

Prepared by: James Lam

Signature: *James Lam*

Date (dd/mm/yyyy): 06/08/2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature: *Colin Yung*

Date (dd/mm/yy): 06/08/2019

**Notes:**

- Abbreviation:
- AL – Action Level
- DO (B) – Dissolved Oxygen (Bottom)
- DO (S&M) – Dissolved Oxygen (Surface & Middle)
- LL – Limit Level
- ME – Mid Ebb
- MF – Mid Flood
- NH3-N (In-situ) – Ammoniacal Nitrogen (In-situ results)
- NH3-N (Lab) – Ammoniacal Nitrogen (Laboratory results)
- TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)
- TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)
- TSS – Total Suspended Solids
- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190704 /M/SR2							
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and Its Approach Channel							
Date:	04/07/2019							
Time: (hh:mm)	Mid-Flood:	08:02	Mid-Ebb:	10:31				
Monitoring Location:	SR2 – Casam, Gazetted Beach							
Action Level / Limit Level:	DO (S&M):	4.68/4.62 mg/L;	NH3-N:	0.21/0.24 mg/L ;				
	DO (B):	4.11/4.04 mg/L;	Turbidity:	10.8/15.0 NTU;				
	TSS :	12/19 mg/L.	:	/ mg/L.				
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:		Mid-Ebb:					
	DO (S&M):	AL / LL	DO (B):	AL / LL	DO (S&M):	AL / LL	DO (B):	AL / LL
	Turbidity:	AL / LL	NH3-N(In-situ):	0.27 AL / LL	Turbidity:	AL / LL	NH3-N(In-situ):	0.27 AL / LL
	NH3-N(Lab):	0.26 AL / LL	:	AL / LL.	NH3-N(Lab):	0.26 AL / LL	:	AL / LL
Action taken / to be taken: (tick / fill in as appropriate)	Inspection:							
	<input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____							
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)		DO(S&M)	DO(B)	Turbidity	NH3-N (In-situ)	NH3-N (Lab)		
	Findings / Evidences							
	<input type="checkbox"/> Station at Upstream Location at ME							
	<input type="checkbox"/> Upstream Control Station ( ) exceeded AL/LL							
	<input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF	Upstream: ( ) mg/L	Upstream: ( ) mg/L	Upstream: ( ) NTU	Upstream: ( ) mg/L			
<input checked="" type="checkbox"/> No Dredging Works carried out.	Downstream: ( ) mg/L	Downstream: ( ) mg/L	Downstream: ( ) NTU	Downstream: ( ) mg/L				
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.				✓	✓		
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.							
	Mid-Flood:	DO (S&M):	0.27	DO (B):	Turbidity:			
	Mid-Ebb:	NH3-N:	0.27	DO (B):	Turbidity:			
		DO (S&M):						
		NH3-N:	0.27					
	<input type="checkbox"/> _____							
	_____							
	_____							
	_____							

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	DO(S&M)	DO(B)	Turbidity	NH3-N	
Others					

Prepared by: James Lam

Signature:

Date (dd/mm/yyyy): 06/08/2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature:

Date (dd/mm/yy): 06/08/2019

**Notes:**

- Abbreviation:

AL – Action Level

DO (B) – Dissolved Oxygen (Bottom)

DO (S&M) – Dissolved Oxygen (Surface & Middle)

LL – Limit Level

ME – Mid Ebb

MF – Mid Flood

NH3-N (In-situ) – Ammoniacal Nitrogen (In-situ results)

NH3-N (Lab) – Ammoniacal Nitrogen (Laboratory results)

TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)

TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)

TSS – Total Suspended Solids

- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190704 /IMSR3						
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and Its Approach Channel						
Date:	04/07/2019						
Time: (hh:mm)	Mid-Flood: 07:44		Mid-Ebb: 10:49				
Monitoring Location:	SR3 -Approach, Gazetted Beach						
Action Level / Limit Level:	DO (S&M): 4.68/4.62 mg/L; DO (B): 4.11/4.04 mg/L; TSS : 12/19 mg/L		NH3-N: 0.21/0.24 mg/L ; Turbidity: 10.8/15.0 NTU; : / mg/L				
Measured Level of exceeded parameters (tick / fill in / circle as appropriate)	Mid-Flood:			Mid-Ebb:			
	DO (S&M):	AL / LL	DO (B):	AL / LL	DO (S&M):	AL / LL	
	Turbidity:	AL / LL	NH3-N(In-situ):	0.25 AL / (L)	Turbidity:	AL / LL	
	NH3-N(Lab):	0.25 AL / (L)	TSS :	AL / LL	NH3-N(Lab):	0.26 AL / (L)	
Action taken / to be taken: (tick / fill in as appropriate)	Inspection:						
	<input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____						
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)	<input type="checkbox"/> Station at Upstream Location at ME	DO(S&M)	DO(B)	Turbidity	NH3-N (In-situ)	NH3-N (Lab)	
	<input type="checkbox"/> Upstream Control Station ( ) exceeded AL/LL						
	<input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF	Upstream:	( ) mg/L	Upstream:	( ) mg/L	Upstream:	( ) NTU
		Downstream:	( ) mg/L	Downstream:	( ) mg/L	Downstream:	( ) NTU
<input checked="" type="checkbox"/> No Dredging Works carried out.							
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.				✓	✓	
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.						
	Mid-Flood:	DO (S&M):	DO (B):	Turbidity:			
	NH3-N:	0.25					
Mid-Ebb:	DO (S&M):	DO (B):	Turbidity:				
	NH3-N:	0.24					
<input type="checkbox"/> _____ _____ _____ _____ _____							

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**Materialab**

	DO(S&M)	DO(B)	Turbidity	NH3-N	
Others					

Prepared by: James LamSignature: Date (dd/mm/yyyy): 06/08/2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature: Date (dd/mm/yy): 06/08/2019

## Notes:

- Abbreviation:

AL – Action Level

DO (B) – Dissolved Oxygen (Bottom)

DO (S&amp;M) – Dissolved Oxygen (Surface &amp; Middle)

LL – Limit Level

ME – Mid Ebb

MF – Mid Flood

NH3-N (In-situ) – Ammoniacal Nitrogen (In-situ results)

NH3-N (Lab) – Ammoniacal Nitrogen (Laboratory results)

TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)

TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)

TSS – Total Suspended Solids

- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190704 /IM/SR5					
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel					
Date:	04/07/2019					
Time: (hh:mm)	Mid-Flood:	08:17	Mid-Ebb:	10:17		
Monitoring Location:	SR5 - Ma Wan FCZ					
Action Level / Limit Level:	DO (S&M):	5/5 mg/L;	Turbidity:	10.8/15.0 NTU;		
	DO (B):	4.11/4.04 mg/L;	TIN	0.45/0.50 <sup>(wet season)</sup> or 0.36/0.39 <sup>(dry season)</sup> mg/L		
	TSS :	12 / 19 mg/L	:	/ mg/L		
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:				Mid-Ebb:	
	DO (S&M):	___ AL / LL	DO (B):	___ AL / LL	DO (S&M):	___ AL / LL
	Turbidity:	___ AL / LL	TIN(In-situ):	0.84 AL / <input checked="" type="checkbox"/> LL	Turbidity:	___ AL / LL
	TIN(Lab):	0.81 AL / <input checked="" type="checkbox"/> LL	TSS :	___ AL / LL	TIN(Lab):	0.81 AL / <input checked="" type="checkbox"/> LL
Action taken / to be taken: (tick / fill in as appropriate)	Inspection:					
	<input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____					
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)	Findings / Evidences					
	<input type="checkbox"/> Station at Upstream Location at ME	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
	<input type="checkbox"/> Upstream Control Station <sup>(or gradient station)</sup> exceeded AL/LL					
	<input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF	Upstream: _____ ( ) mg/L	Upstream: _____ ( ) mg/L	Upstream: _____ ( ) NTU	Upstream: _____ ( ) mg/L	
	<input checked="" type="checkbox"/> No Dredging Works carried out.	Downstream: _____ ( ) mg/L	Downstream: _____ ( ) mg/L	Downstream: _____ ( ) NTU	Downstream: _____ ( ) mg/L	
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.			✓	✓	
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.					
	Mid-Flood:	DO (S&M): _____	DO (B): _____	Turbidity: _____		
		TIN: 0.84				
	Mid-Ebb:	DO (S&M): _____	DO (B): _____	Turbidity: _____		
		TIN: 0.83				
	<input type="checkbox"/> _____ _____ _____ _____					

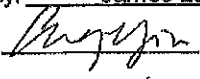
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**Materialab**

	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
Others					

Prepared by: James LamSignature: Date (dd/mm/yyyy): 06/08/2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature: Date (dd/mm/yy): 06/08/2019**Notes:**

- Abbreviation:

AL – Action Level

DO (B) – Dissolved Oxygen (Bottom)

DO (S&amp;M) – Dissolved Oxygen (Surface &amp; Middle)

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NH<sub>3</sub>-N (In-situ) – Ammoniacal Nitrogen (In-situ results)NH<sub>3</sub>-N (Lab) – Ammoniacal Nitrogen (Laboratory results)

TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)

TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)

TSS – Total Suspended Solids

- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
 Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190706 /IM/SR5								
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and Its Approach Channel								
Date:	06/07/2019								
Time: (hh:mm)	Mid-Flood: 10:48		Mid-Ebb: 11:59						
Monitoring Location:	SR5 – Ma Wan FCZ								
Action Level / Limit Level:	DO (S&M): 5/5 mg/L; DO (B): 4.11/4.04 mg/L; TSS : 12 / 19 mg/L		Turbidity: 10.8/16.0 NTU; TIN 0.45/0.60(wet season) or 0.36/0.39(dry season)mg/L. / / mg/L						
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:		Mid-Ebb:						
	DO (S&M):	AL / LL	DO (B):	AL / LL	DO (S&M):	AL / LL	DO (B):	AL / LL	
	Turbidity:	AL / LL	TIN(In-situ):	0.95 AL / LL	Turbidity:	AL / LL	TIN(In-situ):	0.89 AL / LL	
	TIN(Lab):	0.89 AL / LL	TSS :	AL / LL	TIN(Lab):	0.88 AL / LL	TSS :	AL / LL	
Action taken / to be taken: (tick / fill in as appropriate)	Inspection:								
	<input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____								
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)	Findings / Evidences								
	<input type="checkbox"/> Station at Upstream Location at ME	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)			
	<input type="checkbox"/> Upstream Control Station (or gradient station) exceeded AL/LL								
	<input type="checkbox"/> No Increasing / decreasing (for DO) trend across the Project at MF	Upstream:	( ) mg/L	Upstream:	( ) mg/L	Upstream:	( ) NTU	Upstream:	( ) mg/L
		Downstream:	( ) mg/L	Downstream:	( ) mg/L	Downstream:	( ) NTU	Downstream:	( ) mg/L
<input checked="" type="checkbox"/> No Dredging Works carried out.									
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.								
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.								
	Mid-Flood:	DO (S&M):	TIN: 0.95	DO (B):	Turbidity:				
	Mid-Ebb:	DO (S&M):	TIN: 0.89	DO (B):	Turbidity:				
	<input type="checkbox"/> _____ _____ _____ _____								



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	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
Others					

Prepared by: James Lam

Signature:

Date (dd/mm/yyyy): 06/08/2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature:

Date (dd/mm/yy): 06/08/2019

**Notes:**

- Abbreviation:
- AL – Action Level
- DO (B) – Dissolved Oxygen (Bottom)
- DO (S&M) – Dissolved Oxygen (Surface & Middle)
- LL – Limit Level
- ME – Mid Ebb
- MF – Mid Flood
- NH3-N (In-situ) – Ammoniacal Nitrogen (In-situ results)
- NH3-N (Lab) – Ammoniacal Nitrogen (Laboratory results)
- TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)
- TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)
- TSS – Total Suspended Solids
- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

**Incident Report on Action Level or Limit Level Non-compliance**

Reference No.:	20190709 /IM/SR5																																																													
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and Its Approach Channel																																																													
Date:	09/07/2019																																																													
Time: (hh:mm)	Mid-Flood: 14:12		Mid-Ebb: 15:15																																																											
Monitoring Location:	SR5 – Ma Wan FCZ																																																													
Action Level / Limit Level:	DO (S&M): 5/5 mg/L; DO (B): 4.11/4.04 mg/L; TSS : 12 / 19 mg/L		Turbidity: 10.8/15.0 NTU; TIN : 0.45/0.50 (wet season) or 0.36/0.39 (dry season) mg/L																																																											
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:		Mid-Ebb:																																																											
	DO (S&M): _____ AL / LL	DO (B): _____ AL / LL	DO (S&M): _____ AL / LL	DO (B): _____ AL / LL	TIN (In-situ): 1.36 AL / LL																																																									
Action taken / to be taken: (tick / fill in as appropriate)	Turbidity: _____ AL / LL		Turbidity: _____ AL / LL																																																											
	TIN (Lab): 1.34 AL / LL		TIN (Lab): 1.34 AL / LL																																																											
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)	Inspection: <input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____																																																													
	<table border="1"> <thead> <tr> <th></th> <th>DO(S&amp;M)</th> <th>DO(B)</th> <th>Turbidity</th> <th>TIN (In-situ)</th> <th>TIN (Lab)</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Station at Upstream Location at ME</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> Upstream Control Station (or gradient station) exceeded AL/LL</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> No Increasing / decreasing (for DO) trend across the Project at MF</td> <td>Upstream: _____ ( ) mg/L</td> <td>Upstream: _____ ( ) mg/L</td> <td>Upstream: _____ ( ) NTU</td> <td>Upstream: _____ ( ) mg/L</td> <td></td> </tr> <tr> <td></td> <td>Downstream: _____ ( ) mg/L</td> <td>Downstream: _____ ( ) mg/L</td> <td>Downstream: _____ ( ) NTU</td> <td>Downstream: _____ ( ) mg/L</td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> No Dredging Works carried out.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Conclusion</td> <td colspan="3"><input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.</td> <td style="text-align: center;">✓</td> <td style="text-align: center;">✓</td> </tr> <tr> <td rowspan="2">Remarks: (tick / fill in as appropriate)</td> <td colspan="5">Repeat In-situ measurement was done.</td> </tr> <tr> <td>Mid-Flood:</td> <td>DO (S&amp;M): _____ TIN: 1.39</td> <td>DO (B): _____</td> <td>Turbidity: _____</td> <td></td> </tr> <tr> <td>Mid-Ebb:</td> <td>DO (S&amp;M): _____ TIN: 1.36</td> <td>DO (B): _____</td> <td>Turbidity: _____</td> <td></td> </tr> </tbody> </table>						DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)	<input type="checkbox"/> Station at Upstream Location at ME						<input type="checkbox"/> Upstream Control Station (or gradient station) exceeded AL/LL						<input type="checkbox"/> No Increasing / decreasing (for DO) trend across the Project at MF	Upstream: _____ ( ) mg/L	Upstream: _____ ( ) mg/L	Upstream: _____ ( ) NTU	Upstream: _____ ( ) mg/L			Downstream: _____ ( ) mg/L	Downstream: _____ ( ) mg/L	Downstream: _____ ( ) NTU	Downstream: _____ ( ) mg/L		<input checked="" type="checkbox"/> No Dredging Works carried out.						Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.			✓	✓	Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.					Mid-Flood:	DO (S&M): _____ TIN: 1.39	DO (B): _____	Turbidity: _____		Mid-Ebb:	DO (S&M): _____ TIN: 1.36	DO (B): _____	Turbidity: _____
	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)																																																									
<input type="checkbox"/> Station at Upstream Location at ME																																																														
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	Mid-Flood:	DO (S&M): _____ TIN: 1.39	DO (B): _____	Turbidity: _____																																																										
Mid-Ebb:	DO (S&M): _____ TIN: 1.36	DO (B): _____	Turbidity: _____																																																											

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	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
Others					

Prepared by: James Lam

Signature: *James Lam*

Date (dd/mm/yyyy): 06 / 08 / 2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature: *Colin Yung*

Date (dd/mm/yy): 06 / 08 / 2019

**Notes:**

- Abbreviation:
- AL – Action Level
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- DO (S&M) – Dissolved Oxygen (Surface & Middle)
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- NH3-N (Lab) – Ammoniacal Nitrogen (Laboratory results)
- TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)
- TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)
- TSS – Total Suspended Solids
- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190711 /IM/SR5							
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel							
Date:	11/07/2019							
Time: (hh:mm)	Mid-Flood: 11:35		Mid-Ebb: 10:24					
Monitoring Location:	SR5 - Ma Wan FCZ							
Action Level / Limit Level:	DO (S&M): 5/5 mg/L; DO (B): 4.11/4.04 mg/L; TSS : 12 / 19 mg/L		Turbidity: 10.8/15.0 NTU; TIN 0.45/0.50 (wet season) or 0.36/0.39 (dry season) mg/L					
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:		Mid-Ebb:					
	DO (S&M):	AL / LL	DO (B):	AL / LL	DO (S&M):	AL / LL	DO (B):	AL / LL
	Turbidity:	AL / LL	TIN (In-situ):	1.26 AL / (C)	Turbidity:	AL / LL	TIN (In-situ):	1.27 AL / (C)
Action taken / to be taken: (tick / fill in as appropriate)	Inspection:							
	<input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____							
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)	Findings / Evidences							
	<input type="checkbox"/> Station at Upstream Location at ME	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)		
	<input type="checkbox"/> Upstream Control Station (or gradient station) exceeded AL/LL							
	<input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF	Upstream: _____ ( ) mg/L	Upstream: _____ ( ) mg/L	Upstream: _____ ( ) NTU	Upstream: _____ ( ) mg/L			
	<input checked="" type="checkbox"/> No Dredging Works carried out.	Downstream: _____ ( ) mg/L	Downstream: _____ ( ) mg/L	Downstream: _____ ( ) NTU	Downstream: _____ ( ) mg/L			
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.			✓	✓			
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.							
	Mid-Flood:	DO (S&M): _____ TIN: 1.26	DO (B): _____	Turbidity: _____				
	Mid-Ebb:	DO (S&M): _____ TIN: 1.27	DO (B): _____	Turbidity: _____				

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	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
Others					

Prepared by: James Lam

Signature:

Date (dd/mm/yyyy): 06/08/2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature:

Date (dd/mm/yy): 06/08/2019

**Notes:**

- Abbreviation:
- AL – Action Level
- DO (B) – Dissolved Oxygen (Bottom)
- DO (S&M) – Dissolved Oxygen (Surface & Middle)
- LL – Limit Level
- ME – Mid Ebb
- MF – Mid Flood
- NH3-N (In-situ) – Ammoniacal Nitrogen (In-situ results)
- NH3-N (Lab) – Ammoniacal Nitrogen (Laboratory results)
- TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)
- TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)
- TSS – Total Suspended Solids
- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190713 /IM/SR5								
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel								
Date:	13/07/2019								
Time: (hh:mm)	Mid-Flood:	13:50	Mid-Ebb:	13:02					
Monitoring Location:	SR5 - Ma Wan FCZ								
Action Level / Limit Level:	DO (S&M):	5/5 mg/L;	Turbidity:	10.8/15.0 NTU;					
	DO (B):	4.11/4.04 mg/L;	TIN	0.45/0.50 <sub>(wet season)</sub> or 0.36/0.39 <sub>(dry season)</sub> mg/L.					
	TSS :	12 / 19 mg/L							
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:				Mid-Ebb:				
	DO (S&M):	AL / LL	DO (B):	AL / LL	DO (S&M):	AL / LL	DO (B):	AL / LL	
	Turbidity:	AL / LL	TIN(In-situ):	0.88 AL / LL	Turbidity:	AL / LL	TIN(In-situ):	0.86 AL / LL	
	TIN(Lab):	0.85 AL / LL	TSS :	AL / LL	TIN(Lab):	0.83 AL / LL	TSS :	AL / LL	
Action taken / to be taken: (tick / fill in as appropriate)	Inspection: <input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____								
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)		DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)	Findings / Evidences		
	<input type="checkbox"/> Station at Upstream Location at ME								
	<input type="checkbox"/> Upstream Control Station (or gradient calculation) exceeded AL/LL								
	<input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF	Upstream:	( ) mg/L	Upstream:	( ) mg/L	Upstream:	( ) NTU	Upstream:	( ) mg/L
		Downstream:	( ) mg/L	Downstream:	( ) mg/L	Downstream:	( ) NTU	Downstream:	( ) mg/L
<input checked="" type="checkbox"/> No Dredging Works carried out.									
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.								
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.								
	Mid-Flood:	DO (S&M):		DO (B):		Turbidity:			
		TIN:	0.88						
	Mid-Ebb:	DO (S&M):		DO (B):		Turbidity:			
		TIN:	0.86						
	<input type="checkbox"/> _____								
	_____								
	_____								
	_____								

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Email : mcl@fugro.com.hk



	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
Others					

Prepared by: James Lam

Signature: *James Lam*

Date (dd/mm/yyyy): 06/08/2019

Certified by: Colln Yung

Designation: Environmental Team Leader

Signature: *Colln Yung*

Date (dd/mm/yy): 06/08/2019

- Notes:
- Abbreviation:
  - AL – Action Level
  - DO (B) – Dissolved Oxygen (Bottom)
  - DO (S&M) – Dissolved Oxygen (Surface & Middle)
  - LL – Limit Level
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  - NH3-N (In-situ) – Ammoniacal Nitrogen (In-situ results)
  - NH3-N (Lab) – Ammoniacal Nitrogen (Laboratory results)
  - TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)
  - TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)
  - TSS – Total Suspended Solids
  - Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190716 /IM/SR5					
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel					
Date:	16/07/2019					
Time: (hh:mm)	Mid-Flood: 07:34		Mid-Ebb: 08:42			
Monitoring Location:	SR5 - Ma Wan FCZ					
Action Level / Limit Level:	DO (S&M): 5/5 mg/L;	Turbidity: 10.8/15.0 NTU;				
	DO (B): 4.11/4.04 mg/L;	TIN 0.45/0.50 (wet season) or 0.38/0.39 (dry season) mg/L				
	TSS : 12 / 19 mg/L	:	/ mg/L			
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:		Mid-Ebb:			
	DO (S&M): AL / LL	DO (B): AL / LL	DO (S&M): AL / LL	DO (B): AL / LL		
	Turbidity: AL / LL	TIN(In-situ): 0.85 AL / LL	Turbidity: AL / LL	TIN(In-situ): 0.80 AL / LL		
	TIN(Lab): 0.84 AL / LL	TSS : AL / LL	TIN(Lab): 0.79 AL / LL	TSS : AL / LL		
Action taken / to be taken: (tick / fill in as appropriate)	Inspection: <input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____					
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)		DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	
					TIN (Lab)	
	Findings / Evidences					
	<input type="checkbox"/> Station at Upstream Location at ME					
	<input type="checkbox"/> Upstream Control Station (or gradient station) exceeded AL/LL					
<input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF	Upstream: ( ) mg/L	Upstream: ( ) mg/L	Upstream: ( ) NTU	Upstream: ( ) mg/L		
	Downstream: ( ) mg/L	Downstream: ( ) mg/L	Downstream: ( ) NTU	Downstream: ( ) mg/L		
<input checked="" type="checkbox"/> No Dredging Works carried out.						
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.			✓	✓	
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done. Mid-Flood: DO (S&M): _____ DO (B): _____ Turbidity: _____ TIN: 0.85 _____ Mid-Ebb: DO (S&M): _____ DO (B): _____ Turbidity: _____ TIN: 0.80 _____ <input type="checkbox"/> _____ _____ _____ _____					



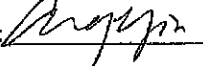
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**MaterialLab**

	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
Others					

Prepared by: James LamSignature: Date (dd/mm/yyyy): 06/08/2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature: Date (dd/mm/yy): 06/08/2019

## Notes:

- Abbreviation:

AL – Action Level

DO (B) – Dissolved Oxygen (Bottom)

DO (S&amp;M) – Dissolved Oxygen (Surface &amp; Middle)

LL – Limit Level

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NH<sub>3</sub>-N (In-situ) – Ammoniacal Nitrogen (In-situ results)NH<sub>3</sub>-N (Lab) – Ammoniacal Nitrogen (Laboratory results)

TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)

TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)

TSS – Total Suspended Solids

- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190718 /IM/SR5					
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwal Tsing Container Basin and its Approach Channel					
Date:	18/07/2019					
Time: (hh:mm)	Mid-Flood: 09:04		Mid-Ebb: 07:59			
Monitoring Location:	SR5 - Ma Wan FCZ					
Action Level / Limit Level:	DO (S&M): 5/5 mg/L;	Turbidity: 10.8/15.0 NTU;				
	DO (B): 4.11/4.04 mg/L;	TIN: 0.45/0.50 <sub>(wet season)</sub> or 0.36/0.39 <sub>(dry season)</sub> mg/L				
	TSS : 12 / 19 mg/L	:				
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:		Mid-Ebb:			
	DO (S&M): _____ AL / LL	DO (B): _____ AL / LL	DO (S&M): _____ AL / LL	DO (B): _____ AL / LL		
	Turbidity: _____ AL / LL	TIN(In-situ): <u>0.80</u> AL / <input checked="" type="checkbox"/> LL	Turbidity: _____ AL / LL	TIN(In-situ): <u>0.79</u> AL / <input checked="" type="checkbox"/> LL		
	TIN(Lab): <u>0.77</u> AL / <input checked="" type="checkbox"/> LL	TSS : _____ AL / LL	TIN(Lab): <u>0.78</u> AL / <input checked="" type="checkbox"/> LL	TSS : _____ AL / LL		
Action taken / to be taken: (tick / fill in as appropriate)	Inspection:					
	<input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____					
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)		DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
	Findings / Evidences					
	<input type="checkbox"/> Station at Upstream Location at ME					
	<input type="checkbox"/> Upstream Control Station <sup>(or gradient station)</sup> exceeded AL/LL					
	<input type="checkbox"/> No Increasing / decreasing (for DO) trend across the Project at MF	Upstream: _____ ( ) mg/L	Upstream: _____ ( ) mg/L	Upstream: _____ ( ) NTU	Upstream: _____ ( ) mg/L	
	Downstream: _____ ( ) mg/L	Downstream: _____ ( ) mg/L	Downstream: _____ ( ) NTU	Downstream: _____ ( ) mg/L		
<input checked="" type="checkbox"/> No Dredging Works carried out.						
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.			✓	✓	
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.					
	Mid-Flood:	DO (S&M): _____	DO (B): _____	Turbidity: _____		
	TIN: <u>0.80</u>	_____	_____	_____		
	Mid-Ebb:	DO (S&M): _____	DO (B): _____	Turbidity: _____		
	TIN: <u>0.79</u>	_____	_____	_____		
	<input type="checkbox"/> _____					

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	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
Others					

Prepared by: James Lam

Signature:

Date (dd/mm/yyyy): 06 / 08 / 2019

Certified by: Colln Yung

Designation: Environmental Team Leader

Signature:

Date (dd/mm/yy): 06 / 08 / 2019

**Notes:**

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- AL – Action Level
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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190720 /IM/SR2								
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwal Tsing Container Basin and its Approach Channel								
Date:	20/07/2019								
Time: (hh:mm)	Mid-Flood:	09:23	Mid-Ebb:	11:34					
Monitoring Location:	SR2 - Casam, Gazetted Beach								
Action Level / Limit Level:	DO (S&M):	4.68/4.62 mg/L;	NH3-N:	0.21/0.24 mg/L ;					
	DO (B):	4.11/4.04 mg/L;	Turbidity:	10.8/15.0 NTU;					
	TSS :	12/19 mg/L	UIA :	0.021/0.021 mg/L.					
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:			Mid-Ebb:					
	UIA (In-situ):	0.068AL / (L)	UIA (Lab):	0.068AL / (L)	UIA (In-situ):	0.072AL / (L)	UIA (Lab):	0.071AL / (L)	
	Turbidity:	_____AL / LL	NH3-N(In-situ):	0.83AL / (L)	Turbidity:	_____AL / LL	NH3-N(In-situ):	0.89AL / (L)	
	NH3-N(Lab):	0.84AL / (L)	_____ :	_____AL / LL	NH3-N(Lab):	0.89AL / (L)	_____ :	_____AL / LL	
Action taken / to be taken: (tick / fill in as appropriate)	Inspection: <input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____								
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)	Findings / Evidences								
	<input type="checkbox"/> Station at Upstream Location at ME	UIA (In-situ):	UIA (Lab):	Turbidity	NH3-N (In-situ)	NH3-N (Lab)			
	<input type="checkbox"/> Upstream Control Station ( ) exceeded AL/LL								
	<input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF	Upstream:	( ) mg/L	Upstream:	( ) mg/L	Upstream:	( ) NTU	Upstream:	( ) mg/L
		Downstream:	( ) mg/L	Downstream:	( ) mg/L	Downstream:	( ) NTU	Downstream:	( ) mg/L
<input checked="" type="checkbox"/> No Dredging Works carried out.									
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.	✓	✓		✓	✓			
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.								
	Mid-Flood:	UIA (In-situ):	0.068	DO (B):	_____	Turbidity:	_____		
		NH3-N:	0.83	DO (B):	_____	Turbidity:	_____		
	Mid-Ebb:	UIA (In-situ):	0.072	DO (B):	_____	Turbidity:	_____		
		NH3-N:	0.89	DO (B):	_____	Turbidity:	_____		
<input type="checkbox"/> _____ _____ _____ _____									

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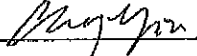
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**MaterialLab**

	DO(S&M)	DO(B)	Turbidity	NH3-N	
Others					

Prepared by: James Lam

Signature: 

Date (dd/mm/yyyy): 06/08/2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature: 

Date (dd/mm/yy): 06/08/2019

**Notes:**

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190720 /IM/SR3					
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and its Approach Channel					
Date:	20/07/2019					
Time: (hh:mm)	Mid-Flood: 08:55		Mid-Ebb: 12:18			
Monitoring Location:	SR3 - Approach, Gazetted Beach					
Action Level / Limit Level:	DO (S&M): 4.68/4.62 mg/L; DO (B): 4.11/4.04 mg/L; TSS : 12/19 mg/L		NH3-N: 0.21/0.24 mg/L ; Turbidity: 10.8/15.0 NTU; UIA : 0.021/0.021 mg/L			
Measured Level of exceeded parameters (tick / fill in / circle as appropriate)	Mid-Flood:			Mid-Ebb:		
	UIA (In-situ): 0.064 AL / (L)	UIA (Lab): 0.086 AL / (L)	UIA (In-situ): 0.073 AL / (L)	UIA (Lab): 0.073 AL / (L)	Turbidity: AL / LL	NH3-N(In-situ): 0.89 AL / (L)
Action taken / to be taken: (tick / fill in as appropriate)	Inspection: <input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____					
	Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)	<input type="checkbox"/> Station at Upstream Location at ME	UIA (In-situ):	UIA (Lab):	Turbidity	NH3-N (In-situ)
<input type="checkbox"/> Upstream Control Station ( ) exceeded AL/LL						
<input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF		Upstream: ( ) mg/L	Upstream: ( ) mg/L	Upstream: ( ) NTU	Upstream: ( ) mg/L	
<input checked="" type="checkbox"/> No Dredging Works carried out.		Downstream: ( ) mg/L	Downstream: ( ) mg/L	Downstream: ( ) NTU	Downstream: ( ) mg/L	
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.					
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.					
	Mid-Flood:	UIA (In-situ): 0.064	DO (B):		Turbidity:	
		NH3-N: 0.81				
	Mid-Ebb:	UIA (In-situ): 0.073	DO (B):		Turbidity:	
		NH3-N: 0.89				

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	DO(S&M)	DO(B)	Turbidity	NH3-N	
Others					

Prepared by: James Lam

Signature:

Date (dd/mm/yyyy): 06 / Oct / 2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature:

Date (dd/mm/yy): 06 / Oct / 2019

**Notes:**

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DO (S&M) – Dissolved Oxygen (Surface & Middle)

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NH3-N (Lab) – Ammoniacal Nitrogen (Laboratory results)

TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)

TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)

TSS – Total Suspended Solids

- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190720 /IM/SR4					
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and Its Approach Channel					
Date:	20/07/2019					
Time: (hh:mm)	Mid-Flood: 08:37		Mid-Ebb: 12:31			
Monitoring Location:	SR4 - Tsuen Wan, WSD Flushing Water Intake					
Action Level / Limit Level:	DO (S&M): 2/2 mg/L;	NH3-N: <1/<1 mg/L;				
	DO (B): 2/2 mg/L;	Turbidity: <10/<10 NTU;				
	Total Suspended Solids : <10/<10 mg/L	UIA : 0.021/0.021 mg/L				
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:		Mid-Ebb:			
	UIA (In-situ): 0.076 AL / <input checked="" type="checkbox"/> LL	UIA (Lab): 0.076 AL / <input checked="" type="checkbox"/> LL	UIA (In-situ): 0.077 AL / <input checked="" type="checkbox"/> LL	UIA (Lab): 0.077 AL / <input checked="" type="checkbox"/> LL		
	Turbidity: _____ AL / LL	NH3-N(In-situ): _____ AL / LL	Turbidity: _____ AL / LL	NH3-N(In-situ): _____ AL / LL		
	E.coli : _____ AL / LL	TSS : _____ AL / LL	E.coli : _____ AL / LL	TSS : _____ AL / LL		
Action taken / to be taken: (tick / fill in as appropriate)	Inspection:					
	<input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____					
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)		UIA (In-situ):	UIA (Lab):	Turbidity	TSS	E.coli
	Findings / Evidences					
	<input type="checkbox"/> Station at Upstream Location at ME					
	<input type="checkbox"/> Upstream Control Station ( ) exceeded AL/LL					
	<input type="checkbox"/> No increasing / decreasing (or <del>no</del> ) trend across the Project at MF	Upstream: _____ ( ) mg/L	Upstream: _____ ( ) mg/L	Upstream: _____ ( ) NTU	Upstream: _____ ( ) mg/L	
	Downstream: _____ ( ) mg/L	Downstream: _____ ( ) mg/L	Downstream: _____ ( ) NTU	Downstream: _____ ( ) mg/L		
<input checked="" type="checkbox"/> No Dredging Works carried out.						
Conclusion	<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.	✓	✓			
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.					
	Mid-Flood: UIA (In-situ): 0.076	DO (B): _____	Turbidity: _____			
	NH3-N: _____	DO (B): _____	Turbidity: _____			
	Mid-Ebb: UIA (In-situ): 0.077	DO (B): _____	Turbidity: _____			
	NH3-N: _____	DO (B): _____	Turbidity: _____			
	<input type="checkbox"/> _____					
	_____					
	_____					
	_____					



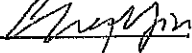
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**Materialab**

	DO(S&M)	DO(B)	Turbidity	NH3-N	
Others					

Prepared by: James LamSignature: Date (dd/mm/yyyy): 06/08/2019

Certified by: Colln Yung

Designation: Environmental Team Leader

Signature: Date (dd/mm/yy): 06/08/2019**Notes:**

- Abbreviation:

AL – Action Level

DO (B) – Dissolved Oxygen (Bottom)

DO (S&amp;M) – Dissolved Oxygen (Surface &amp; Middle)

LL – Limit Level

ME – Mid Ebb

MF – Mid Flood

NH3-N (In-situ) – Ammoniacal Nitrogen (In-situ results)

NH3-N (Lab) – Ammoniacal Nitrogen (Laboratory results)

TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)

TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)

TSS – Total Suspended Solids

- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

**Incident Report on Action Level or Limit Level Non-compliance**

Reference No.:	20190720 /IM/SR5				
Project:	CV/2013/04 - Providing Sufficient Water Depth for Kwai Tsing Container Basin and Its Approach Channel				
Date:	20/07/2019				
Time: (hh:mm)	Mid-Flood: 09:42		Mid-Ebb: 11:12		
Monitoring Location:	SR5 - Ma Wan FCZ				
Action Level / Limit Level:	DO (S&M): 5/5 mg/L; DO (B): 4.11/4.04 mg/L; TSS : 12 / 19 mg/L		Turbidity: 10.8/15.0 NTU; TIN 0.45/0.50 (wet season) or 0.36/0.39 (dry season) mg/L		
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:		Mid-Ebb:		
	DO (S&M): AL / LL	DO (B): AL / LL	DO (S&M): AL / LL	DO (B): AL / LL	TIN (In-situ): 1.51 AL / LL
Action taken / to be taken: (tick / fill in as appropriate)	Turbidity: AL / LL		Turbidity: AL / LL		
	TIN(Lab): 1.37 AL / LL	TSS : AL / LL	TIN(Lab): 1.48 AL / LL	TSS : AL / LL	
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)	Inspection:				
	<input type="checkbox"/> Silt curtain in proper condition				
	<input type="checkbox"/> Dredging rate within accepted rate				
	<input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem.				
	<input type="checkbox"/> Others: _____				
Conclusion	DO(S&M)		DO(B)		Turbidity
	Findings / Evidences				
	<input type="checkbox"/> Station at Upstream Location at ME				
	<input type="checkbox"/> Upstream Control Station (or gradient station) exceeded AL/LL				
<input type="checkbox"/> No increasing / decreasing (for DO) trend across the Project at MF	Upstream:	( ) mg/L	Upstream:	( ) mg/L	Upstream:
	Downstream:	( ) mg/L	Downstream:	( ) mg/L	Downstream:
<input checked="" type="checkbox"/> No Dredging Works carried out.					
<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.					
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.				
	Mid-Flood:	DO (S&M): TIN: 1.37	DO (B):	Turbidity:	
	Mid-Ebb:	DO (S&M): TIN: 1.51	DO (B):	Turbidity:	

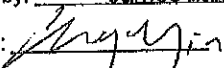
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**MaterialLab**

	DO(S&M)	DO(B)	Turbidity	TIN (In-situ)	TIN (Lab)
Others					

Prepared by: James LamSignature: Date (dd/mm/yyyy): 06/03/2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature: Date (dd/mm/yy): 06/03/2019**Notes:**

- Abbreviation:

AL – Action Level

DO (B) – Dissolved Oxygen (Bottom)

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NH<sub>3</sub>-N (In-situ) – Ammoniacal Nitrogen (In-situ results)NH<sub>3</sub>-N (Lab) – Ammoniacal Nitrogen (Laboratory results)

TIN (In-situ) – Total Inorganic Nitrogen (In-situ results)

TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)

TSS – Total Suspended Solids

- Wet Season: April to October; Dry Season: November to March

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**Interim Notification of Environmental Quality Limits Exceedances  
Impact Water Quality Monitoring**

Incident Report on Action Level or Limit Level Non-compliance

Reference No.:	20190720 /IM/SR12																																								
Project:	GV/2013/04 - Providing Sufficient Water Depth for Kwal Tsing Container Basin and Its Approach Channel																																								
Date:	20/07/2019																																								
Time: (hh:mm)	Mid-Flood:	08:18	Mid-Ebb:	12:52																																					
Monitoring Location:	SR12 - Tsing Yi, WSD Flushing Water Intake																																								
Action Level / Limit Level:	DO (S&M):	2/2 mg/L;	NH3-N:	<1/<1 mg/L ;																																					
	DO (B):	2/2 mg/L;	Turbidity:	<10/<10 NTU;																																					
	Total Suspended Solids :	<10/<10 mg/L	UIA :	0.021/0.021 mg/L																																					
Measured Level of exceeded parameters: (tick / fill in / circle as appropriate)	Mid-Flood:	UIA (In-situ): 0.080AL/LL		Mid-Ebb:	UIA (In-situ): 0.087AL/LL																																				
		UIA (Lab): 0.080AL/LL	UIA (Lab): 0.085AL/LL		Turbidity: AL/LL	NH3-N(In-situ): 1.21AL/LL																																			
	Turbidity:	AL/LL	NH3-N(Lab): 1.15AL/LL	TSS :	AL/LL	NH3-N(Lab): 1.18AL/LL																																			
Action taken / to be taken: (tick / fill in as appropriate)	Inspection:																																								
	<input type="checkbox"/> Silt curtain in proper condition <input type="checkbox"/> Dredging rate within accepted rate <input checked="" type="checkbox"/> Monitoring equipment is checked and confirmed without problem. <input type="checkbox"/> Others: _____																																								
Possible reason for Action or Limit Level Non-compliance: (tick / fill in as appropriate)	<table border="1"> <tr> <td></td> <td>UIA (In-situ):</td> <td>UIA (Lab):</td> <td>Turbidity</td> <td>NH3-N (In-situ):</td> <td>NH3 (Lab):</td> </tr> <tr> <td colspan="6" style="text-align: center;">Findings / Evidencee</td> </tr> <tr> <td><input type="checkbox"/> Station at Upstream Location at ME</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> Upstream Control Station (or gradient station) exceeded AL/LL.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> No increasing / decreasing (or DO) trend across the Project at MF</td> <td>Upstream: ( ) mg/L</td> <td>Upstream: ( ) mg/L</td> <td>Upstream: ( ) NTU</td> <td>Upstream: ( ) mg/L</td> <td></td> </tr> <tr> <td></td> <td>Downstream: ( ) mg/L</td> <td>Downstream: ( ) mg/L</td> <td>Downstream: ( ) NTU</td> <td>Downstream: ( ) mg/L</td> <td></td> </tr> </table>						UIA (In-situ):	UIA (Lab):	Turbidity	NH3-N (In-situ):	NH3 (Lab):	Findings / Evidencee						<input type="checkbox"/> Station at Upstream Location at ME						<input type="checkbox"/> Upstream Control Station (or gradient station) exceeded AL/LL.						<input type="checkbox"/> No increasing / decreasing (or DO) trend across the Project at MF	Upstream: ( ) mg/L	Upstream: ( ) mg/L	Upstream: ( ) NTU	Upstream: ( ) mg/L			Downstream: ( ) mg/L	Downstream: ( ) mg/L	Downstream: ( ) NTU	Downstream: ( ) mg/L	
		UIA (In-situ):	UIA (Lab):	Turbidity	NH3-N (In-situ):	NH3 (Lab):																																			
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	Downstream: ( ) mg/L	Downstream: ( ) mg/L	Downstream: ( ) NTU	Downstream: ( ) mg/L																																					
<input checked="" type="checkbox"/> No Dredging Works carried out.																																									
<input checked="" type="checkbox"/> Due to change or/and influence of ambient condition in the vicinity, i.e. not Project related.	✓	✓		✓	✓																																				
Remarks: (tick / fill in as appropriate)	Repeat In-situ measurement was done.																																								
	Mid-Flood:	UIA (In-situ):	0.080	DO (B):	_____	Turbidity:	_____																																		
		NH3-N:	1.15		_____		_____																																		
	Mid-Ebb:	UIA (In-situ):	0.087	DO (B):	_____	Turbidity:	_____																																		
		NH3-N:	1.21		_____		_____																																		

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	DO(S&M)	DO(B)	Turbidity	NH3-N	
Others					

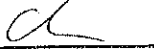
Prepared by: James Lam

Signature: 

Date (dd/mm/yyyy): 06/08/2019

Certified by: Colin Yung

Designation: Environmental Team Leader

Signature: 

Date (dd/mm/yy): 06/08/2019

**Notes:**

- Abbreviation:
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- DO (B) – Dissolved Oxygen (Bottom)
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- TIN (Lab) – Total Inorganic Nitrogen (Laboratory results)
- TSS – Total Suspended Solids
- Wet Season: April to October; Dry Season: November to March

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Report No.: 0394/13/ED/0380A

### Appendix J Environmental Mitigation Implementation Schedule

EIA Ref	EM&A Ref	No.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Who to implement the measure	Location of the measure	When to implement the measure?	Implementation Status
		A	Water Quality					
3.8	2.9		<u>Use of Silt Screens</u>	Minimize the effect of potential increase in SS levels at the seawater intakes	Contractor	WSD8, WSD9 and EMSD1	Construction Phase	
	A1	Silt Screens shall be installed at the flushing water intakes WSRs WSD1, WSD8, <del>WSD9</del> and EMSD1 to minimise the effect of potential increase in SS levels at the seawater intakes.	Implemented					
3.8	2.9		<u>Use of Silt Curtains</u>	Minimize the release of suspended soil from the dredging area	Contractor	Construction Work Sites	Construction Phase	
	A2	To minimize the potential SS impact from dredging, deployment of silt curtains around the grab dredgers is recommended; and  Before commencement of dredging works, the holder of the Environmental Permit shall submit detailed proposal of the design and arrangement of the frame type silt curtain to EPD for approval.	NA – No dredging was carried out					
3.10	2.9	A3	Water Quality Monitoring Program	Perform water quality monitoring at sensitive receivers during construction phase	ET	Monitoring Locations as stated in Table 2.1 of the EM&A Manual	Construction Phase	
			Water quality monitoring shall be carried out in accordance with Section 2 of the Environmental Monitoring and Audit (EM&A) Manual.  Event and Action Plan (EAP) for water quality shall be followed in case of any exceedance in action and limit level.					Implemented
3.8 (EP Ref 3)	-		Dredging Operation	Minimize potential adverse effect as a result of dredging activities	Contractor	Construction Work Sites	Construction Phase	
	A4	Only two types of dredgers are allowed for this Project: (a) grab dredger with closed grab, and (b) <del>cutter suction dredger</del> spud pole grab dredger.	NA – No dredging was carried out					
	A5	The speed of any construction vessels shall not exceed 10 knots when passing through the area of the Project.	NA – No dredging was carried out					
	A6	No more than <del>three</del> two grab dredgers with closed grab ( <del>or one cutter suction dredger with two closed grab dredgers</del> ) shall be operated within the Project Area at any one time for the Project.	NA – No dredging was carried out					
	A7	Only one closed grab dredger <del>or one cutter suction dredger</del> shall be operated in Zone 2B and during which no other closed grab dredger shall be allowed in other zones within the Project Area.	NA – No dredging was carried out					
	A8	No more than one grab dredger with closed grab ( <del>or one cutter suction dredger</del> ) shall be operated within each of the five main zones at any one time for the Project in which the cutter suction dredger shall only be operated in Zones 2 and 4 with maximum dredging rate of 700 m <sup>3</sup> in 30 minutes in any given hour (max. 8,400 m <sup>3</sup> /day, based on a 12-hour operation per day).	NA – No dredging was carried out					
	A9	The maximum dredging rate for closed grab dredger at Rambler Channel – Zones 1 to 2 (subzones Z1A, Z1B, Z2A, Z2B and Z2C) shall follow the Dredging Plan for the Hotspot, as shown in EP-426/2011/A.	NA – No dredging was carried out					
	A10	The maximum dredging rate for closed grab dredger at Rambler Channel – Zones 3 to 4 (subzones Z3A to Z4B) shall not exceed 1,600 m <sup>3</sup> per day during dry season or 3,440 m <sup>3</sup> per day during wet season as shown in EP-426/2011/A.	NA – No dredging was carried out					
	A11	The maximum dredging rate for closed grab dredger at Rambler Channel –	NA – No					

EIA Ref	EM& A Ref	No.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Who to implement the measure	Location of the measure	When to implement the measure?	Implementation Status
			Zones 5 to 6 (subzones Z5A, Z5B and Z6A) shall not exceed 4,000 m <sup>3</sup> per day during both dry and wet seasons as shown in EP-426/2011/A.					dredging was carried out
		A12	The maximum dredging rate for closed grab dredger at Rambler Channel – Zones 5 to 8 (subzones Z5C, Z6B, Z6C, Z6D, Z7 and Z8) shall not exceed 4,000 m <sup>3</sup> per day during both dry and wet seasons as shown in EP-426/2011/A.					NA – No dredging was carried out
		A13	The maximum dredging rate for closed grab dredger at Northern Fairway – Zones 9 to 12 shall not exceed 4,000 m <sup>3</sup> per day during both dry and wet seasons as shown in EP-426/2011/A.					NA – No dredging was carried out
		A14	The maximum dredging rate for closed grab dredger at Western Fairway – Zone 13A shall not exceed 4,000 m <sup>3</sup> per day during both dry and wet seasons as shown in EP-426/2011/A.					NA – No dredging was carried out
		A15	The maximum dredging rate for closed grab dredger at Western Fairway – Zone 13B shall not exceed 4,000 m <sup>3</sup> per day during both dry and wet seasons as shown in EP-426/2011/A.					NA – No dredging was carried out
		A16	<del>The dredging pump of cutter suction dredger shall be operated during cutting to reduce the sediment loss to water body.</del>					NA-no CSD employed
		A17	Project dredging works within Zone 1 to 6 (including sub-zones) of the Container Basin shall not be carried out at the same time with Terminal Operator's maintenance dredging activities.					NA-No Terminal Operator's maintenance dredging carried out
		A18	<del>Cutter suction dredger is only to be deployed for the removal of harder material during daytime only (07:00 to 19:00) in Zone 2 (including subzones) of the Container Basin.</del>					NA-no CSD employed
		A19	In case of rainstorm warning in effect during dredging works, the dredged material on barge shall be covered properly before transportation to disposal site.					NA – No dredging was carried out
		A20	In case of exceedance of SS and NH <sub>3</sub> -N at the Tsing Yi WSD flushing intake due to dredging operation is evidenced, the Contractor shall propose mitigation measures not limited to reducing dredging rate. If exceedance persists, the Contractor shall propose not to undertake dredging operation in close proximity to the Tsing Yi flushing water intake during flood tide. The Contractor shall liaise with the ETL, IEC, ER, EPD and WSD for the proposed mitigation measures.					NA-no exceedance due to dredging operation
		A21	If further mitigation measures are required due to continuous exceedance of SS and NH <sub>3</sub> -N, consideration shall then be given to dredge only on the state of the tide which would avoid migration of SS towards the WSD and EMSD intakes.					NA-no exceedance due to dredging operation
		A22	Dredging sub-zone Z2B where high NH <sub>3</sub> -N in sediment is found shall be isolated with dredging works to be carried out towards the end of construction programme.					Implemented
		A23	Administrative control in terms of dredging rate adjustment in controlling the release of contaminants shall be employed as mitigation measures.					NA – No dredging was carried out
		A24	Field trials shall be carried out to propose the most effective dredging					Implemented



EIA Ref	EM& A Ref	No.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Who to implement the measure	Location of the measure	When to implement the measure?	Implementation Status
			process and rate to control the release of ammoniacal nitrogen and UIA into the water column and achieve compliance at the WSD1 seawater intake (NH <sub>3</sub> -N) and at the beaches for UIA. Capital dredging works in dredging sub-zone Z2B (Figure 1.2h refers) should not therefore be carried out until the proposed method and rate are confirmed.					
		A25	Detailed dredging plan shall be prepared providing details of individual dredging subzones and dredging rate taking into account of the field trial results.					Implemented
3.8	-		<b>Other Good Site Practices for Dredging</b>	Minimize potential adverse effect as a result of dredging activities	Contractor	Construction Work Sites	Construction Phase	
		A26	All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash.					Implemented
		A27	The speed of all Contractor's vessels should be controlled within the works area to prevent propeller wash from stirring up the seabed sediments.					Implemented
		A28	All barges / dredgers used should be fitted with tight fitting seals to their bottom openings to prevent leakage of material.					Implemented
		A29	Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site or dumping grounds.					Partially Implemented
		A30	No overflow of dredged mud should be allowed. Barges or hopper should not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation.					Implemented
		<b>B</b>	<b>Waste Management</b>					
			<u>Good Site Practices</u>	Minimize potential adverse effect arising from the handling of dredged material	Contractor	Construction Work Sites (General)	Construction Phase	
4.5	3.3	B1	Obtain the profile of different sediment categories and careful planning of sediment removal.					Implemented
		B2	Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.					Implemented
		B3	Training of site personnel in proper waste management and chemical handling procedures.					Implemented
		B4	Provision of sufficient waste disposal points and regular collection of waste.					Implemented
		B5	Well planned delivery programme for offsite disposal such that adverse environmental impact from transporting sediment material is not anticipated.					Implemented
		B6	Use well maintained PME on site.					Implemented
			<u>General Refuse</u>	Minimize the adverse effect arising from the handling of site general refuse	Contractor	Construction Work Sites (General)	Construction Phase	
4.5	3.3	B7	General refuse should be stored in enclosed bins. A reputable waste collector should be employed by the contractor to remove general refuse from the site.					Implemented
			<u>Chemical Waste</u>	Minimize the adverse effect arising from the handling of site chemical waste	Contractor	Construction Work Site	Construction Phase	
4.5	3.3	B8	If chemical wastes are produced at the construction site, the Contractor shall be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers					Implemented

EIA Ref	EM& A Ref	No.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Who to implement the measure	Location of the measure	When to implement the measure?	Implementation Status
			compatible with the chemical wastes shall be used, and incompatible chemicals should be stored separately. Appropriate labels shall be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.					
4.5	3.3		<b>Marine Dredged Sediment</b>	Control of transportation and disposal of dredged material in a manner to minimize potential impacts on water quality	Contractor	Construction Work Site	Construction Phase	
		B9	Control of transportation and disposal of dredged material in a manner to minimize potential impacts on water quality.					Implemented
		B10	Bottom opening of barges will be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and dredgers before the vessel is moved.					Implemented
		B11	Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the EPD.					Implemented
		B12	Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation.					Implemented
		B13	Sediment Quality Report shall be prepared and submit to EPD under DASO.					Implemented
		B14	If disposal of Type 3 sediment is identified, agreement with EPD shall be reached regarding the treatment of sediment before disposal.					NA – no type 3 material disposed
		B15	Project works shall not be carried out before obtaining confirmation from MFC on disposal option.					Implemented
		B16	Follow strictly all conditions stipulated in the dumping permit.					Implemented
		<b>C</b>	<b>Marine Ecology</b>	Review and assess the potential adverse effect on marine ecology	Contractor	Construction Work Sites	Construction Phase	
5.7	4.1	C1	Water quality monitoring results shall be reviewed from time to time to assess if there were any impact to marine ecology due to dredging operation.					Implemented
		<b>D</b>	<b>Fisheries</b>	Review and assess the potential adverse effect on fisheries	Contractor	Construction Work Sites	Construction Phase	
6.7	5.1	D1	Water quality monitoring results shall be reviewed from time to time to assess if there were any impact to fisheries due to dredging operation.					Implemented
		<b>E</b>	<b>Hazard to Life</b>		Contractor	Construction Work Sites (General)	Construction Phase	
7.8.2	6.2	E1	Sound communication channel shall be established with the oil companies, Marine Department, and Fire Services Department for effective notification and emergency evacuation in case of accidents.					Implemented
		E2	Proper safety and emergency training shall be given to the relevant operation staff at the dredging site. Emergency plans and procedures should be prepared and drills should be performed periodically.					Implemented
		<b>F</b>	<b>Landscape Visual and Glare</b>	Minimize landscape and visual impacts during construction	Contractor	Construction activities' area	Throughout design, construction	
8.9	7.2	F1	Visa shields to the lights of dredgers shall be provided.					Implemented
Table		F2	The light source shall not point directly to any VSRs.					Implemented

EIA Ref	EM& A Ref	No.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Who to implement the measure	Location of the measure	When to implement the measure?	Implementation Status
8-3 & 8-6		F3	Lights shall be switched off if they are not in use.	phase			phase	Implemented
		<b>G</b>	<b>Cultural Heritage</b>					
9.5	8		<u>Monitoring Brief</u>	Minimize potential marine archaeological impact during dredging activities	Contractor	Locations of the 20 unidentified sonar contacts and masked areas	During Construction works	
		G1	A monitoring brief shall be conducted during the dredging. It shall only be required during dredging at the locations of the 20 unidentified sonar contacts and masked areas and does not need to cover all of the dredging activities. Dredging staff should be briefed about the possibility of locating archaeological objects and a marine archaeologist shall be available to monitor the dredged spoil and provide advice. If material indicative of archaeological remains is retrieved, the AMO should be contacted as soon as possible.					NA- no archaeological deposit was found during reporting period.
		<b>H</b>	<b>Noise</b>					
10.8	9		<u>Good Site Practices</u>	Control and minimize the generation of undue noise nuisance	Contractor	Construction Work Sites (Along the alignment of dredging)	Construction Phase	
		H1	Only well-maintained plant shall be operated on-site and plant should be serviced regularly during the construction program.					Implemented
		H2	Machines and plant that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum.					Implemented
		H3	Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from nearby NSRs.					Implemented
		H4	If dredging is to be carried out during restricted hours, work locations close to NSRs shall be avoided.					Implemented
		<b>I</b>	<b>Construction Dust</b>					
11.7	10		<u>Dust Control</u>	Good site practice to control dust and odour impact to the nearby sensitive receivers	Contractor	Construction Work Sites (General)	Construction Phase	
		I1	Requirements of the Air Pollution Control (Construction Dust) Regulation, where relevant, shall be adhered to during the construction period.					Implemented
			<u>Odour</u>		Contractor	Construction Work Sites (General)	Construction Phase	
		I2	To minimize potential odour emissions, if dredged sediment is anticipated to be placed on barge for more than a day the load shall be properly covered as far as practicable to minimise the exposed area and potential odour.	NA-no work in such condition				
		I3	If dredged sediment is found to be malodorous it shall be removed from site as soon as possible within one hour after the barge being filled up.					NA-no work in such condition

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### Appendix K Waste Generation in Reporting Period

Name of Department : Civil Engineering and Development Department  
 Contract No. : CV/2013/04

**Monthly Summary Waste Flow Table for 2019 (year)**

Year	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Broken Concrete (see Note 3)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Metals	Paper/cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000 m <sup>3</sup> )	(in '000 m <sup>3</sup> )	(in '000 m <sup>3</sup> )	(in '000 m <sup>3</sup> )	(in '000 m <sup>3</sup> )	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 m <sup>3</sup> )
2019										
Jan	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil
Feb	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil
Mar	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil
Apr	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil
May	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil
Jun	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil
Jul	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil
Aug										
Sep										
Oct										
Nov										
Dec										
Total	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil

Notes:

- (1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (3) Broken concrete for recycling into aggregates

### Monthly Summary of Sediment Disposal (2019)

Marine Sediment Type	Type 1 – Open Sea Disposal	Type 2 – Confined Marine Disposal	Type 3 – Special Treatment / Disposal
Month	Quantity (m <sup>3</sup> )	Quantity (m <sup>3</sup> )	Quantity (m <sup>3</sup> )
<b>2014</b>			
Jan-Dec	549,430	99,660	nil
<b>2015</b>			
Jan-Dec	938,560	372,370	nil
<b>2016</b>			
Jan-Dec	195,860	153,250	1,260
<b>2017</b>			
Jan-Dec	1,850	28,550	nil
<b>2018</b>			
Jan-Dec	nil	nil	nil
<b>2019</b>			
January	nil	nil	nil
February	nil	nil	nil
March	nil	600	nil
April	nil	nil	nil
May	nil	nil	nil
June	nil	nil	nil
July	nil	nil	nil
<b>Total</b>	<b>1,685,700</b>	<b>654,130</b>	<b>1,260</b>

## Yearly Summary Waste Flow Table

Year	Estimated Annual Quantities of Inert C&D Materials (in '000m <sup>3</sup> )										Estimated Annual of C&D Wastes									
	Total Quantity Generated		Broken Concrete (see Note 3)		Reused in the Contract		Reused in other Projects		Disposed as Public Fill		Metals		Paper/cardboard packaging		Plastics (see Note 2)		Chemical Waste		Others, e.g. general refuse	
	(a)		(b)		(c)		(d)		(a-b-c-d)		(in '000 kg)		(in '000 kg)		(in '000 kg)		(in '000 kg)		(in '000 m <sup>3</sup> )	
	Est.	Act.	Est.	Act.	Est.	Act.	Est.	Act.	Est.	Act.	Est.	Act.	Est.	Act.	Est.	Act.	Est.	Act.	Est.	Act.
2013	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.003	0.01
2014	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.2	0.16
2015	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	13	14.4	0.2	0.12
2016	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	17	Nil	0.2	0.12
2017	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	10	Nil	0.15	0.12
2018	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020																				
2021																				
Grand Total	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	40	14.4	0.753	0.53

### Notes:

- (1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
- (3) Broken concrete for recycling into aggregates.

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## Appendix L Weather Conditions for the Reporting Month



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Date	Air Temperature			Mean Relative Humidity (%)	Total Rainfall (mm)
	Maximum (deg. C)	Mean (deg. C)	Minimum (deg. C)		
<b>June 2019</b>					
23	32.2	30.3	29.1	80	3.2
24	30.6	29.1	24.7	85	16.8
25	29.7	27.2	24.8	89	35.4
26	31.4	28.6	26.1	86	0.9
27	32.5	30.2	28.3	83	3.5
28	32.7	30.5	29.3	82	2.2
29	33.3	31	29.5	79	0.6
30	33	29.5	26.9	85	33.1
<b>July 2019</b>					
1	33.2	30	26.8	82	15.3
2	31.1	28.9	26.3	85	19.1
3	28.7	26.6	25.5	95	79.1
4	32.3	29.1	27	84	13
5	32	29.5	26.8	79	1.3
6	31.6	29.8	27.9	80	1.5
7	31.4	29.7	28.9	81	4.3
8	32.3	30.1	29.1	79	0.1
9	31.7	30	28.7	80	6
10	30.2	28.6	26.5	86	14.3
11	30.9	28.8	27.5	86	6
12	32.3	29.9	28.1	80	2.6
13	32.2	30.1	29.2	77	Trace
14	32.3	30.1	29.2	79	Trace
15	33.7	30.4	28.7	77	0
16	33.4	30.3	28.4	76	0
17	33.1	30.5	28.3	79	0
18	35	31.3	29.6	75	Trace
19	32.8	29.5	26.9	83	22.6
20	31.9	28.6	26.6	87	6.4
21	31.5	29.3	27.3	83	0.1
22	31.5	29.2	27.1	82	0.4

Source: Hong Kong Observatory

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### Rainstorm Warning Signals

Color	Start Time		End Time		Duration hh mm
	hh mm	dd/mon/yyyy	hh mm	dd/mon/yyyy	
Amber	16:15	25-Jun-19	17:55	25-Jun-19	01 40
Amber	0:45	3-Jul-19	2:05	3-Jul-19	01 20
Amber	14:05	19-Jul-19	15:15	19-Jul-19	01 10
Amber	18:45	19-Jul-19	19:45	19-Jul-19	01 00
Amber	12:10	20-Jul-19	13:30	20-Jul-19	01 20
Amber	5:25	11-Jun-19	7:40	11-Jun-19	02 15
Amber	8:45	13-Jun-19	10:00	13-Jun-19	01 15
Amber	14:30	13-Jun-19	17:20	13-Jun-19	02 50
Amber	0:45	14-Jun-19	1:45	14-Jun-19	01 00

Source: Hong Kong Observatory

### Thunderstorm Warning

Start Time		End Time		Duration hh mm
hh mm	dd/mon/yyyy	hh mm	dd/mon/yyyy	
3:30	24-Jun-19	8:30	24-Jun-19	05 00
9:45	24-Jun-19	19:45	24-Jun-19	10 00
21:40	24-Jun-19	0:15	25-Jun-19	02 35
13:05	25-Jun-19	20:30	25-Jun-19	07 25
0:30	26-Jun-19	1:40	26-Jun-19	01 10
5:25	26-Jun-19	7:00	26-Jun-19	01 35
12:55	28-Jun-19	15:00	28-Jun-19	02 05
8:40	29-Jun-19	12:00	29-Jun-19	03 20
2:40	30-Jun-19	7:00	30-Jun-19	04 20
14:01	30-Jun-19	18:00	30-Jun-19	03 59
2:25	1-Jul-19	6:00	1-Jul-19	03 35
9:40	1-Jul-19	10:45	1-Jul-19	01 05
12:45	1-Jul-19	13:45	1-Jul-19	01 00
2:45	2-Jul-19	4:15	2-Jul-19	01 30
10:23	2-Jul-19	11:20	2-Jul-19	00 57
21:10	2-Jul-19	17:45	3-Jul-19	20 35
0:50	4-Jul-19	3:00	4-Jul-19	02 10
3:25	4-Jul-19	6:40	4-Jul-19	03 15

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Start Time		End Time		Duration hh mm
hh mm	dd/mon/yyyy	hh mm	dd/mon/yyyy	
2:15	10-Jul-19	4:15	10-Jul-19	02 00
9:10	10-Jul-19	11:15	10-Jul-19	02 05
11:55	10-Jul-19	18:00	10-Jul-19	06 05
6:15	11-Jul-19	7:15	11-Jul-19	01 00
14:25	11-Jul-19	21:30	11-Jul-19	07 05
14:05	18-Jul-19	16:00	18-Jul-19	01 55
17:35	18-Jul-19	20:45	18-Jul-19	03 10
12:20	19-Jul-19	16:00	19-Jul-19	03 40
17:55	19-Jul-19	20:40	19-Jul-19	02 45
10:35	20-Jul-19	15:00	20-Jul-19	04 25
15:45	20-Jul-19	19:30	20-Jul-19	03 45
9:05	21-Jul-19	13:45	21-Jul-19	04 40
10:15	22-Jul-19	15:00	22-Jul-19	04 45
17:38	22-Jul-19	0:20	23-Jul-19	06 42

Source: Hong Kong Observatory