





# Contract No. 13/WSD/17

# Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant

# Monthly EM&A Report No.31 (Period from 1 September to 30 September 2022)

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| Date:     | 20 October 2022           | 20 October 2022            |



Water Supplies Department New Works Branch Consultants Management Division 6/F Sha Tin Government Offices 1 Sheung Wo Che Road Sha Tin New Territories

Your reference:

Our reference:HKWSD202/50/108300Date:21 October 2022

Attention: Mr Sam Hui/ Mr H L Lai

BY EMAIL & POST (email: wl\_hui@wsd.gov.hk/ jack\_hl\_lai@wsd.gov.hk)

Dear Sirs

Agreement No. CE 5/2019 (EP) Independent Environmental Checker for First Stage of Tseung Kwan O Desalination Plant – Investigation Verification of Monthly EM&A Report No.31 (September 2022)

We refer to emails of 10, 19 and 20 October 2022 attaching Monthly EM&A Report No. 31 (September 2022) for the captioned project prepared by the ET.

We have no further comment and hereby verify the captioned report in accordance with Clause 3.5 of the Environmental Permit no. EP-503/2015/A and Further Environmental Permit no. FEP-01/503/2015/A.

Should you have any queries regarding the above, please do not hesitate to contact the undersigned on 2618 2831.

Yours faithfully ANEWR CONSULTING LIMITED

Louis Kwan Independent Environmental Checker

KSYL/lsmt







### **REVISION HISTORY**

| Rev. | <b>Description of Modification</b>         | Date       |
|------|--|------------|
| А    | First Issue for Comments                   | 10/10/2022 |
| В    | Revised according to IEC and SOR's comment | 19/10/2022 |
| С    | Updated Waste Flow Table                   | 20/10/2022 |





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#### **EXECUTIVE SUMMARY**

#### **INTRODUCTION**

- A1. The Project, Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant (TKODP), is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO) and is currently governed by a Further Environmental Permit (EP No. FEP 01/503/2015/A) for the construction and operation of the Contract.
- A2. In accordance with the Environmental Monitoring and Audit (EM&A) Manual for the Contract, EM&A works for marine water quality, noise, waste management and ecology should be carried out by Environmental Team (ET), Acuity Sustainability Consulting Limited (ASCL), during the construction phase of the Contract.
- A3. This is the 31<sup>st</sup> Monthly EM&A Report, prepared by ASCL, for the Contract summarizing the monitoring results and audit findings of the EM&A programme at and around Tseung Kwan O Area 137 (TKO 137) during the reporting period from 1 September 2022 to 30 September 2022.
- A4. The EM&A programme for this contract has covered environmental monitoring on construction noise level at selected NSRs and Contractor's environmental performance auditing in the aspects of construction dust, construction noise, water quality, waste management, Landscape and Visual and Ecology.

#### SUMMARY OF MAIN WORKS UNDERTAKEN & KEY MITIGATION MEASURES IMPLEMENTED

- A5. Key activities carried out in this reporting period for the Contract included the followings:
  - Adjacent Chemical Building Underground utility (UU) Construction Work
  - Adjacent ActiDAFF UU Construction Work
  - Adjacent RO Building UU Construction Work
  - 132 kV temporary emergency vehicular access (eva) Construction
  - Product Water Storage Tank (PWST) UU construction work
  - Adjacent PWST carbon steel pipe installation work
  - Adjacent PWST UU construction work
  - 132 kV Substation (Hill Side) Backfill
  - Post Treatment Building (PTB) UU Construction Work
  - Construction of parapet and internal finishes at 2/F, 3/F and 4/F and Construction of roof of lift shaft at Administration Building
  - Installation of hoarding on 2/F and waterproofing works at 1/F at Administration Building
  - Steel fixing works for segment 6, segment 4 and segment 3 and construction of stair tower at Inspection corridor
  - Water proofing work on roof of Cartridge Filter Plant Room and Construction of kiosks and installation of louvre at ActiDAFF



- Covering the wall opening and water proofing works at the roof of Chemical building
- Dredging for diffuser pipe caisson removal and Glass Reinforced Plastics (GRP) Pipe installation at Outfall Shaft
- Shaft backfill rock and excavation and lateral support (ELS) removal at Intake Shaft
- Staircases and internal finishing, puddle pipe installation at Combined Shaft
- Staircases and internal finishing, overhead crane installation at Pump room
- Excavation at slope toe and access erection, mini piles construction at Clear Water Bay Country Park
- Trench excavation, structure installation, Grouting and backfill at Open Channel
- E&M works ActiDAFF (cell 1, 3, 5, 6, 7) Scaffolding, installation of mechanical equipment and piping
- E&M works PWST Installation of building services, Installation of mechanical equipment, steel pipe
- E&M works PTB Installation of building services, Lifting of lime silo, filter press
- E&M works Administration Building Installation of building services
- E&M works Chemical Building Installation of building services, Lifting of steel tanks
- E&M works RO building Installation of building services, electrical switchboard, Installation of mechanical equipment, steel pipe, GRP pipe, Lifting of electrical switchboard
- E&M works MECCP Installation of chillers, building services, electrical switchboard
- A6. The major environmental impacts brought by the above construction works include:
  - Construction dust and noise generation from construction works, excavation works, rock cutting works and pipe piling driving works
  - Waste generation from the construction activities; and
  - Impact on water quality from marine construction works and inland construction works.
- A7. The key environmental mitigation measures implemented for the Contract in this reporting period associated with the above construction works include:
  - Dust suppression by regular wetting and water spraying for construction works;
  - Reduction of noise from equipment and machinery on-site and regular inspection to machinery and plants/vehicles on-site to ensure proper functioning;
  - Sorting and storage of general refuse and construction waste; and
  - Deployment of temporary silt curtain in the area where marine construction works were conducted and deployment of water sedimentation tanks for treatment of wastewater at inland and marine areas before discharge.



SUMMARY OF EXCEEDANCE & INVESTIGATION & FOLLOW-UP

- A8. No noise monitoring was conducted during the reporting period since there are no Contract -related construction activities undertaken within a radius of 300m from the monitoring locations. No exceedance of the Action Level was recorded during the reporting period.
- A9. The EM&A works for water quality were conducted during the reporting period in accordance with the EM&A Manual.
- A10. One hundred and five (105) of the general water quality monitoring results of suspended solids (SS) obtained had exceeded the Action Level. Eighty-five (85) of the general water quality monitoring results of SS obtained during the reporting period had exceeded the Limit Level.
- A11. Investigation on the reason of exceedance has been carried out, where the exceedances of SS on 1, 3, 6, 8, 10, 13, 15, 17, 20, 22, 24, 27 and 29 September 2022 were concluded to be unrelated to the Contract as detailed in the Incident Reports on Action Level or Limit Level Non-compliance along with supporting materials in **Appendix 0**.
- A12. In this reporting period, 46 times of landfill gas monitoring were conducted at Wan Po Road (Ch1+513 Ch1+625). No action and limit level exceedance was recorded in the reporting period.
- A13. Joint site inspections of the construction work by ET and IEC were carried out on 6, 13, 20 and 30 September 2022 to audit the mitigation measures implementation status. Recommendations and observations were recorded in the site inspection checklists and provided to the contractors together with the appropriate follow-up actions where necessary.

**COMPLAINT HANDLING AND PROSECUTION** 

A14. No environmental complaint, notification of summons and prosecution was received in the reporting period.

**Reporting Change** 

A15. There was no change to be reported that may affect the on-going EM&A programme.

SUMMARY OF UPCOMING KEY ISSUES AND KEY MITIGATION MEASURES

- A16. Key activities anticipated in the next reporting period for the Contract will include the followings:
  - Adjacent Chemical Building Underground utility (UU) Construction Work
  - Adjacent ActiDAFF UU Construction Work
  - Adjacent RO Building UU Construction Work
  - 132 kV temporary emergency vehicular access (eva) Construction
  - Product Water Storage Tank (PWST) UU construction work



- Adjacent PWST carbon steel pipe installation work
- Adjacent PWST UU construction work
- 132 kV Substation (Hill Side) Backfill
- Post Treatment Building (PTB) UU Construction Work
- Construction of parapet and internal finishes at 2/F, 3/F and 4/F and Construction of roof of lift shaft at Administration Building
- Installation of hoarding on 2/F and waterproofing works at 1/F at Administration Building
- Steel fixing works for segment 6, segment 4 and segment 3 and construction of stair tower at Inspection corridor
- Water proofing work on roof of Cartridge Filter Plant Room and Construction of kiosks and installation of louvre at ActiDAFF
- Covering the wall opening and water proofing works at the roof of Chemical building
- Dredging for diffuser pipe caisson removal and Glass Reinforced Plastics (GRP) Pipe installation at Outfall Shaft
- Shaft backfill rock and excavation and lateral support (ELS) removal at Intake Shaft
- Staircases and internal finishing, puddle pipe installation at Combined Shaft
- Staircases and internal finishing, overhead crane installation at Pump room
- Excavation at slope toe and access erection, mini piles construction at Clear Water Bay Country Park
- Trench excavation, structure installation, Grouting and backfill at Open Channel
- E&M works ActiDAFF (cell 1, 3, 5, 6, 7) Scaffolding, installation of mechanical equipment and piping
- E&M works PWST Installation of building services, Installation of mechanical equipment, steel pipe
- E&M works PTB Installation of building services, Lifting of lime silo, filter press
- E&M works Administration Building Installation of building services
- E&M works Chemical Building Installation of building services, Lifting of steel tanks
- E&M works RO building Installation of building services, electrical switchboard, Installation of mechanical equipment, steel pipe, GRP pipe, Lifting of electrical switchboard
- E&M works MECCP Installation of chillers, building services, electrical switchboard



- A17. The major environmental impacts brought by the above construction works will include:
  - Construction dust and noise generation from excavation and construction works;
  - Waste generation from construction activities; and
  - Impact on water quality from marine construction works and inland construction works.
- A18. The key environmental mitigation measures for the Contract in the coming reporting period associated with the above construction works will include:
  - Reduction of noise from equipment and machinery on-site;
  - Dust suppression by regular wetting and water spraying for construction works and at main haul road;
  - Sorting and storage of general refuse and construction waste; and
  - Deployment of temporary silt curtain in the area where marine construction works were conducted and deployment of water sedimentation tanks for treatment of wastewater at inland and marine areas before discharge.



#### **1. BASIC CONTRACT INFORMATION**

#### BACKGROUND

- 1.1. The Acciona Agua, S.A. Trading, Jardine Engineering Corporation, Limited and China State Construction Engineering (Hong Kong) Limited as AJC Joint Venture (AJCJV) is contracted to carry out the Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant (DPTKO) under Contract No. 13/WSD/17 (the Contract).
- 1.2. Acuity Sustainability Consulting Limited (ASCL) is commissioned by AJCJV to undertake the Environmental Team (ET) services as required and/or implied, both explicitly and implicitly, in the Environmental Permit (EP), Environmental Impact Assessment Report (EIA Report) (Register No. AEIAR-192/2015) and Environmental Monitoring and Audit Manual (EM&A Manual) for the Contract; and to carry out the Environmental Monitoring and Audit (EM&A) programme in fulfillment of the EIA Report's EM&A requirements and Contract No. 13/WSD/17 Specification requirements.
- 1.3. Pursuant to the Environmental Impact Assessment Ordinance (EIAO), the Director of Environmental Protection granted the Environmental Permit (No. EP-01/503/2015) and Variation of Environmental Permit (No. EP-01/503/2015/A) to Water Supplies Department (WSD); and granted the Further Environmental Permit (No. FEP-01/503/2015/A) to AJCJV for the Contract.

#### THE REPORTING SCOPE

1.4. This is the 31<sup>st</sup> Monthly EM&A Report for the Contract which summarizes the key findings of the EM&A programme during the reporting period from 1 September to 30 September 2022.

#### **CONTRACT ORGANIZATION**

1.5. The Contract Organization structure for Construction Phase is presented in **Figure 1.1**.

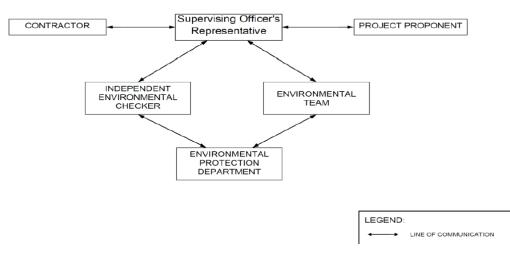


Figure 1.1Contract Organization Chart

1.6. Contact details of the key personnel are presented in **Table 1.1** below:



Table 1.1Contact Details of Key Personnel

| Party   | Position                                      | Name             | Telephone no. |
|---|---|------------------|---------------|
| Contract Proponent<br>(Water Supplies Department)                                       | SE/CM2  | Benny Lam        | 2634-3573     |
| Supervising Officer   | Project<br>Manager                            | Christina Ko     | 2608-7302     |
| (Binnies Hong Kong Limited)   | Chief Resident<br>Engineer                    | Roger Wu         | 6343-1002     |
| The Jardine Engineering<br>Corporation, Limited, China                                  | Project<br>Manager                            | Stephen<br>Yeung | 2807-4665     |
| State Construction Engineering<br>(Hong Kong) Limited and<br>Acciona Agua, S.A. Trading | Environmental<br>Monitoring<br>Manager        | Brian Kam        | 9456-9541     |
| Acuity Sustainability Consulting<br>Limited   | Environmental<br>Team Leader                  | Jacky Leung      | 2698-6833     |
| ANewR Consulting Limited  | Independent<br>Environmental<br>Checker (IEC) | Louis Kwan       | 2618-2831     |

#### **SUMMARY OF CONSTRUCTION WORKS**

- 1.7. Details of the major construction activities undertaken in this reporting period are shown as below. The construction programme is presented in **Appendix A**.
- 1.8. Key activities carried out in this reporting period for the Contract included the followings:
  - Adjacent Chemical Building Underground utility (UU) Construction Work
  - Adjacent ActiDAFF UU Construction Work
  - Adjacent RO Building UU Construction Work
  - 132 kV temporary emergency vehicular access (eva) Construction
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- E&M works MECCP Installation of chillers, building services, electrical switchboard
- •
- 1.9. A summary of the valid permits, licences, and/or notifications on environmental protection for this Contract is presented in **Table 1.2**.

# Table 1.2 Summary of the Status of Valid Environmental Licence, Notification,Permit and Documentations

| Permit/ Licences                                   | Valid Period   |              | Status | Remark        |
|--|--|--------------|--------|---------------|
| Fermit/ Litences                                   | From To  |              | Status | Keillaik      |
| Environmental Permit                               |  |              |        |               |
| FEP - 01/503/2015/A                                | Throughout   | the Contract | Valid  | -             |
| Notification of Constru                            | Notification of Construction Works under the Air Pollution Control (Construction |              |        | (Construction |
| Dust) Regulation (Form NA)                         |  |              |        |               |
| 451539   | Throughout the Contract  |              | Valid  | -             |
| Billing Account for Disposal of Construction Waste |  |              |        |               |
| 7036276  | Throughout   | the Contract | Valid  | -             |

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| Dormit / Liconcoc                    | Valid Period                        |            | Status | Remark |
|--------------------------------------|-------------------------------------|------------|--------|--------|
| Permit/ Licences                     | From To                             |            | Status |        |
| Chemical Waste Producer Registration |                                     |            |        |        |
| 5213-839-A2987-01                    | Throughout the Contract             |            | Valid  | -      |
| Wastewater Discharge                 | rge Licence (Land and Marine works) |            |        |        |
| WT00035775-2020                      | 23/08/2021                          | 31/07/2025 | Valid  | -      |
| Construction Noise Permit            |                                     |            |        |        |
| GW-RE0627-22                         | 29/06/2022                          | 21/12/2022 | Valid  | -      |

1.10. The status for all environmental aspects is presented in **Table 1.3**.

Table 1.3 Summary of Status for Key Environmental Aspects under the EM&A Manual

| Parameters   | Status   |
|--|--|
| Water Quality  |  |
| Baseline Monitoring under EM&A<br>Manual   | The baseline water quality monitoring was conducted between 12 May 2020 to 6 Jun 2020  |
| Impact Monitoring  | On-going   |
| Noise  |  |
| Baseline Monitoring  | The baseline noise monitoring result has been<br>reported in Baseline Monitoring Report and<br>submitted to EPD under EP Condition 3.4 |
| Impact Monitoring  | On-going   |
| Waste Management   |  |
| Mitigation Measures in Waste<br>Management Plan  | On-going   |
| Landfill Gas   |  |
| Regular Monitoring when<br>Construction Works are within the<br>250m Consultation Zone   | In this reporting period, 46 times of landfill gas<br>monitoring was conducted at Wan Po Road<br>(Ch1+513 – Ch1+625).                  |
| Environmental Audit  |  |
| Site Inspection covering Measures<br>of Air Quality, Noise Impact, Water<br>Quality, Waste, Ecological Quality,<br>Fisheries, Landscape and Visual | On-going   |

- 1.11. Other than the EM&A work by ET, environmental briefings, trainings, and regular environmental management meetings were conducted, in order to enhance environmental awareness and closely monitor the environmental performance of the contractors.
- 1.12. The EM&A programme has been implemented in accordance with the recommendations presented in the approved EIA Report and the EM&A Manual. A summary of implementation status of the environmental mitigation measures for the construction phase of the Contract during the reporting period is provided in **Appendix C**.



## **2.** Noise

#### MONITORING REQUIREMENTS

- 2.1. To ensure no adverse noise impact, noise monitoring is recommended to be carried out within 300m radius from the nearby noise sensitive receivers (NSRs), during construction phase. The NSRs selected as monitoring station are (i) NSR4 Creative Secondary School, (ii) NSR24 PLK Laws Foundation College, and (iii) NSR31 School of Continuing and Professional Studies CUHK respectively.
- 2.2. In accordance with the EM&A Manual, baseline noise level at the noise monitoring stations were established as presented in the Baseline Monitoring Report. Impact noise monitoring will be conducted once per week in the form of 30-minutes measurements  $L_{eq}$ ,  $L_{10}$  and  $L_{90}$  levels recorded at each monitoring station between 0700 and 1900 on normal weekdays.
- 2.3. Referring to EM&A manual Section 4.1.2, the impact noise monitoring should be carried out at all the designated monitoring stations when there are contract-related construction activities undertaken within a radius of 300m from the monitoring stations.
- 2.4. No impact monitoring for noise impact was conducted in the reporting month due to the overly distant monitoring station from the works location, where they were farther than 1 km from the closest monitoring station NSR4 to the works location.
- 2.5. Impact noise monitoring will be conducted weekly in the reporting period between 0700-1900 on normal weekdays. Construction works would follow stipulations of the valid Construction Noise Permits if works had to be conducted during restricted hours or public holidays.
- 2.6. Construction noise level were measured in terms of the A-weighted equivalent continuous sound pressure level (LAeq). Leq 30min was used as the monitoring parameter for the time period between 0700 and 1900 on normal weekdays. **Table 2.1** summarizes the monitoring parameters, frequency, and duration of the impact noise monitoring.

| Time                  | Duration  | Interval   | Parameters   |
|-----------------------|---|--|--|
| Daytime:<br>0700-1900 | Day time:<br>0700-1900<br>(during normal<br>weekdays) | Continuously in $L_{eq 5min}/L_{eq 30min}$ (average of 6 consecutive $L_{eq 5min}$ ) | L <sub>eq 30min</sub><br>L <sub>10 30min</sub> & L90 30min |

Table 2.1Noise Monitoring Parameters, Time, Frequency and Duration



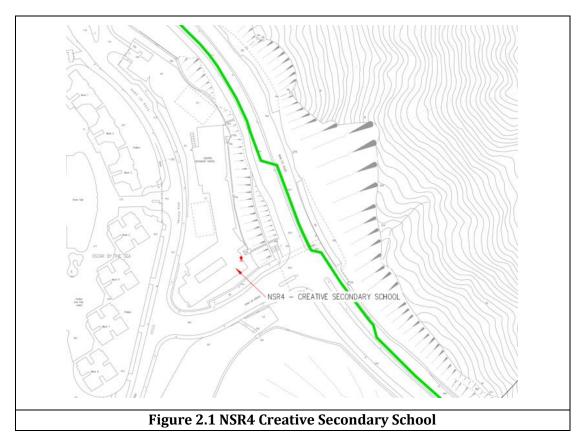
#### MONITORING LOCATIONS

- 2.7. The monitoring locations were normally made at a point 1m from the exterior of the NSRs building façade and be at a position 1.2m above the ground. A correction of +3dB(A) should be made to the free-field measurements.
- 2.8. According to the environmental findings detailed in the EIA report and Baseline Monitoring Report, the designated locations for the construction noise monitoring are listed in **Table 2.2** below.

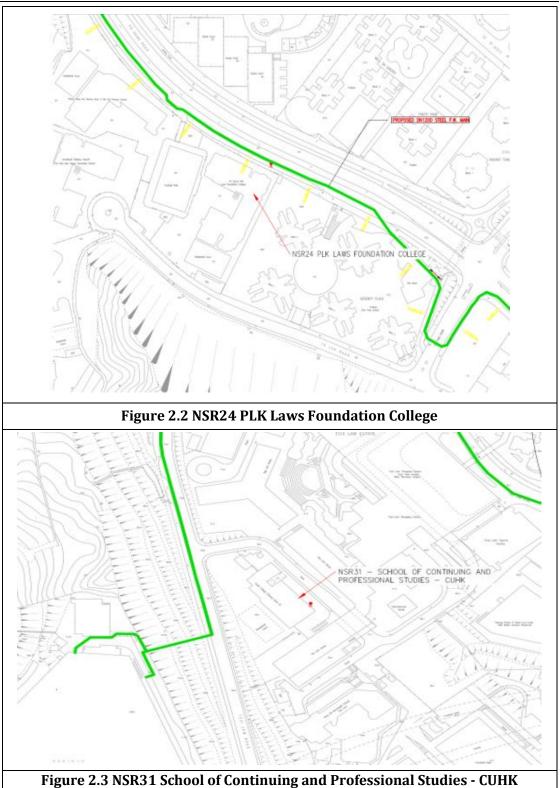
| NSR ID | Noise Sensitive Receivers                               | Monitoring<br>Location             | Position        |
|--------|---|------------------------------------|-----------------|
| NSR 4  | Creative Secondary School                               | Roof Floor                         | 1 m from facade |
| NSR 24 | PLK Laws Foundation College                             | Pedestrian Road on<br>Ground Floor | Free-field      |
| NSR 31 | School of Continuing and<br>Professional Studies - CUHK | Roof Floor                         | 1 m from facade |

Table 2.2Noise Sensitive Receivers

2.9. Three noise monitoring locations for impact monitoring at the nearby sensitive receivers are shown in **Figure 2.1-2.3**.









#### IMPACT MONITORING METHODOLOGY

- 2.10. Integrated sound level meter was used for the noise monitoring. The meter was in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications. Immediately prior to and following each noise measurement the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements was accepted as valid only if the calibration levels before and after the noise measurements agree to within 1.0 dB(A). Calibration certificates of the instruments used to be shown at **Appendix F** are intentionally left blank since no impact monitoring equipment was used in the reporting month.
- 2.11. Noise measurements were not made in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

#### **ACTION AND LIMIT LEVELS**

2.12. The Action/Limit Levels are in line with the criteria of Practice Note for Professional Persons (ProPECC PN 2/93) "Noise from Construction Activities – Non-statutory Controls" and Technical Memorandum on Environmental Impact Assessment Process issued by HKSAR Environmental Protection Department ["EPD"] under the Environmental Impact Assessment Ordinance, Cap 499, S.16 are presented in **Table 2.3**.

Table 2.3Action and Limit Levels for Noise per EM&A Manual

| Time Period         | Action                         | Limit (dB(A))         |
|---------------------|--------------------------------|-----------------------|
|                     | When one documented            | • 70 dB(A) for school |
| 0700-1900 on normal | complaint is received from any | and                   |
| weekdays            | one of the noise sensitive     | • 65 dB(A) during     |
|                     | receivers                      | examination period    |
|                     |                                |                       |

Note: Limits specified in the GW-TM and IND-TM for construction and operation noise, respectively.

2.13. If exceedances were found during noise monitoring, the actions in accordance with the Event and Action Plan shall be carried out according to **Appendix E.** 

#### MONITORING RESULTS AND OBSERVATIONS

2.14. Referring to EM&A Manual Section 4.1.2, the impact noise monitoring should be carried out when there are Contract-related construction activities undertaken within a radius of 300m from the monitoring stations. No monitoring station was located within a radius of 300m of the Contract site as shown in **Figure 2.4**, no impact monitoring for noise impact was conducted in the reporting period.

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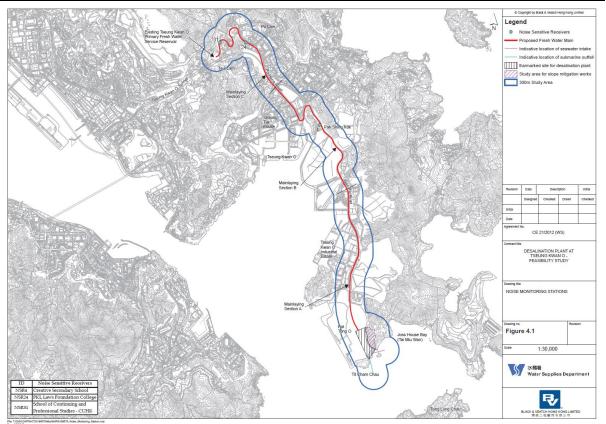


Figure 2.4 Site Layout Plan with Noise Sensitive Receivers and Desalination Plant



## **3. WATER QUALITY**

- 3.1. In accordance with the recommendations of the EIA, water quality monitoring is required during dredging for the submarine pipelines and, during operation phase. In addition, baseline water quality monitoring will be required prior to the commencement of marine construction activities. The following Section provides details of the water quality monitoring to be undertaken by the Environmental Team (ET) to verify the distance of sediment and brine plume dispersion and to identify whether the potential exists for any indirect impacts to occur to ecological sensitive receivers. The water quality monitoring programme will be carried out to allow any deteriorating water quality to be readily detected and timely action taken to rectify the situation. The status and locations of water quality sensitive receivers and the marine works location may change after issuing this Document. If required, the ET in consultation with IEC will propose updated monitoring locations and seek approval from EPD.
- 3.2. Water quality monitoring for the Contract can be divided into the following stages:
  - Dredging activities during construction phase;
  - Discharge of effluent from main disinfection during construction phase;
  - Operation phase first year upon commissioning; and,
  - Continuous monitoring of effluent quality.

#### WATER QUALITY PARAMETERS

3.3. The parameters that have been selected for measurement in situ and in the laboratory are those that were either determined in the EIA to be those with the most potential to be affected by the construction works or are a standard check on water quality conditions. Parameters to be measured in the impact monitoring are listed in **Table 3.1**.

| Table 3.1 | Parameters measured in the Impact Marine Water Quality Monitoring |
|-----------|---|
|-----------|---|

| Parameters                          | Unit | Abbreviation |  |  |  |  |  |
|-------------------------------------|------|--------------|--|--|--|--|--|
| In-situ measurements                |      |              |  |  |  |  |  |
| Dissolved oxygen                    | mg/L | DO           |  |  |  |  |  |
| Temperature                         | оС   | -            |  |  |  |  |  |
| pH                                  | -    | -            |  |  |  |  |  |
| Turbidity                           | NTU  | -            |  |  |  |  |  |
| Salinity                            | 0/00 | -            |  |  |  |  |  |
| Total Residual Chlorine NOTE1       | mg/L | TRC          |  |  |  |  |  |
| Laboratory measurements             |      |              |  |  |  |  |  |
| Suspended Solids                    | mg/L | SS           |  |  |  |  |  |
| Iron-Soluble                        | mg/L | Fe           |  |  |  |  |  |
| Anti-scalant as Reactive Phosphorus | mg/L | PO4 as P-    |  |  |  |  |  |

NOTE 1: Monitoring of Total Residual Chlorine will be conducted when cleaning and sterilization of the new freshwater main is carried out.



3.4. In addition to the water quality parameters, other relevant data were also being measured and recorded in Water Quality Monitoring Logs, including the location of the sampling stations, water depth, time, weather conditions, sea conditions, tidal stage, current direction and velocity, special phenomena and work activities undertaken around the monitoring and works area that may influence the monitoring results.

#### **MONITORING EQUIPMENT**

3.5. For water quality monitoring, the following equipment were used:

**Dissolved Oxygen and Temperature Measuring Equipment** - The instrument was a portable, weatherproof dissolved oxygen measuring instrument complete with cable, sensor, comprehensive operation manuals, and was operable from a DC power source. It was capable of measuring: dissolved oxygen levels in the range of 0 - 20 mg/L and 0 - 200% saturation; and a temperature of 0 - 45 degrees Celsius. It has a membrane electrode with automatic temperature compensation complete with a cable of not less than 35 m in length. Sufficient stocks of spare electrodes and cables were available for replacement where necessary (e.g. YSI model 59 DO meter, YSI 5739 probe, YSI 5795A submersible stirrer with reel and cable or an approved similar instrument).

**Turbidity Measurement Equipment** - The instrument was a portable, weatherproof turbidity-measuring unit complete with cable, sensor and comprehensive operation manuals. The equipment was operated from a DC power source, it has a photoelectric sensor capable of measuring turbidity between 0 - 1000 NTU and complete with a cable with at least 35 m in length (for example Hach 2100P or an approved similar instrument).

**Salinity Measurement Instrument** - A portable salinometer capable of measuring salinity in the range of 0 - 40 ppt was provided for measuring salinity of the water at each monitoring location.

**Water Depth Gauge** – A portable, battery-operated echo sounder (for example Seafarer 700 or a similar approved instrument) was used for the determination of water depth at each designated monitoring station. This unit will preferably be affixed to the bottom of the work boat if the same vessel is to be used throughout the monitoring programme. The echo sounder was suitably calibrated.

**Positioning Device** – A Global Positioning System (GPS) was used during monitoring to allow accurate recording of the position of the monitoring vessel before taking measurements. The Differential GPS, or equivalent instrument, was suitably calibrated at appropriate checkpoint (e.g. Quarry Bay Survey Nail) to verify that the monitoring station is at the correct position before the water quality monitoring commence.

**Water Sampling Equipment** - A water sampler, consisting of a PVC or glass cylinder of not less than two litres, which can be effectively sealed with cups at both ends, was used. The water sampler has a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth.



#### SAMPLING / TESTING PROTOCOLS

- 3.6. All in situ monitoring instruments were checked, calibrated, and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme before use, and subsequently re-calibrated at monthly intervals throughout the stages of the water quality monitoring. Responses of sensors and electrodes were checked with certified standard solutions before each use.
- 3.7. **Table 3.2** summarizes the equipment used in the water quality monitoring program. The copies of the calibration certification of multi-parameter water quality system are shown in the **Appendix N**.

| Tuble 5.2 Water Quarty Hontoring Equipment |               |                     |      |  |  |  |  |  |
|--|---------------|---------------------|------|--|--|--|--|--|
| Model & Make                               | Serial Number | Calibration<br>Date | Qty. |  |  |  |  |  |
| Water Sampler                              |               |                     |      |  |  |  |  |  |
| Kahlsico Water Sampler 13SWB20             | -             | -                   | 1    |  |  |  |  |  |
| Multi-parameter Water Quality System       |               |                     |      |  |  |  |  |  |
| HORIBA U-53                                | THAUKESL      | 26 Aug 2022         | 2    |  |  |  |  |  |
| YSI ProDSS                                 | 22C106561     | 27 Sep 2022         | Z    |  |  |  |  |  |

#### Table 3.2 Water Quality Monitoring Equipment

3.8. On-site calibration of field equipment was following the "*Guide to On-Site Test Methods for the Analysis of Waters*", BS 1427: 2009. Sufficient stocks of spare parts were maintained for replacements when necessary. Backup monitoring equipment was made available so that monitoring can proceed uninterrupted even when equipment is under maintenance, calibration etc.

#### LABORATORY MEASUREMENT AND ANALYSIS

- 3.9. Sufficient volume of each water sample was collected for carrying out the laboratory analyses. Using chain of custody forms, collected water samples were transferred to a HOKLAS accredited laboratory for immediate processing. The determination work was start within the next working day after collection of the water samples. Analytical methodology and sample preservation of other parameters were based on the latest edition of Standard Methods for the Examination of Waste and Wastewater published by APHA, AWWA and WPCF and methods by USEPA, or suitable method in accordance with requirements of HOKLAS or another internationally accredited scheme. The QA/QC details were in accordance with requirements of HOKLAS or another internationally accredited scheme.
- 3.10. Parameters for laboratory measurements, standard methods and detection limits are presented in **Table 3.3**.

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#### Table 3.3 Laboratory measurements, standard methods, and corresponding detection limits of marine water quality monitoring

| Parameters                          | Standard Methods               | Detection<br>Limit | Reporting<br>Limit | Precision |
|-------------------------------------|--------------------------------|--------------------|--------------------|-----------|
| Dissolved oxygen                    | Instrumental, CTD              | 0.1                | -                  | ±25%      |
| Temperature                         | Instrumental, CTD              | 0.1                | -                  | ±25%      |
| рН                                  | Instrumental, CTD              | 0.1                | -                  | ±25%      |
| Turbidity                           | Instrumental, CTD              | 0.1                | -                  | ±25%      |
| Salinity                            | Instrumental, CTD              | 0.1                | -                  | ±25%      |
| Suspended Solids                    | APHA 23 <sup>rd</sup> Ed 2540D | 1.0                | 2.5                | ±17%      |
| Total Residual Chlorine             | APHA 21st Ed 4500 –<br>ClG     | 0.1                | 0.2                | ±10%      |
| Iron-soluble                        | USEPA 6010C                    | 0.2                | 0.2                | ±25%      |
| Anti-scalant as Reactive phosphorus | APHA 4500P: B&F                | 0.01               | 0.01               | ±25%      |

#### **MONITORING LOCATION**

3.11. The Impact water quality monitoring locations are in accordance with the EM&A Manual and detailed in **Table 3.4** below. A schedule for water quality monitoring was prepared by the ET and approved by IEC and EPD prior to the commencement of the monitoring.

Table 3.4Location of Impact Water Quality Monitoring Stations

| Station | Easting | Northing | Description   |
|---------|---------|----------|---|
| CE      | 843550  | 815243   | Upstream control station at ebb tide                      |
| CF      | 846843  | 810193   | Upstream control station at flood tide                    |
| WSR1    | 846864  | 812014   | Ecological sensitive receiver at Tung Lung Chau           |
| WSR2    | 847645  | 812993   | Fisheries sensitive receiver at Tung Lung Chau            |
| WSR3    | 848023  | 813262   | Ecological sensitive receiver at Tung Lung Chau           |
| WSR4    | 847886  | 814154   | Ecological sensitive receiver at Tai Miu Wan              |
| WSR16   | 845039  | 815287   | Ecological sensitive receiver at Fat Tong Chau            |
| WSR33   | 847159  | 814488   | Ecological sensitive receiver at Tai Miu Wan              |
| WSR36   | 846878  | 814081   | Ecological sensitive receiver at Kwun Tsai                |
| WSR37   | 846655  | 813810   | Ecological sensitive receiver at Tit Cham Chau            |
| NF1     | 846542  | 813614   | Edge of mixing zone, $\sim$ 200m west of outfall diffuser |
| NF2     | 846942  | 813614   | Edge of mixing zone, $\sim$ 200m east of outfall diffuser |
| NF3     | 846742  | 813414   | Edge of mixing zone, ~ 200m south of outfall diffuser     |

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3.12. WSR1 to WSR37 were identified in accordance with Annex 14 of the EIAO-TM as well as Clause 3.4.4.2 of the Environmental Impact Assessment Study Brief for Desalination Plant at Tseung Kwan O (No. ESB-266/2013). WSR1 to WSR3 are sited near the Tung Lung Chau Fish Culture Zone; WSR16 and WSR36 are sited near the coral assemblages along the coastlines of Fat Tong Chau and Kwun Tsai respectively; WSR 4 and WSR33 are sited near the Coastal Protection Area and coral assemblages in waters of Tai Miu Wan; WSR37 is sited near the fisheries resource including spawning and nursery grounds at the coastal water of Tit Cham Chau.

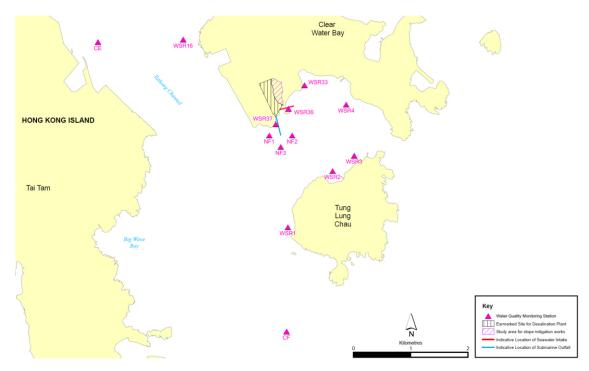


Figure 3.1 Impact water quality monitoring locations under EM&A Manual

#### SAMPLING FREQUENCY

3.13. Impact water quality monitoring were carried out three days per week during the construction phase after the commencement of marine construction works and dredging activities. Monitoring at each station was undertaken at both mid-ebb and mid-flood tides on the same day. The tidal range selected for the impact monitoring was at least 0.5 m for both flood and ebb tides as far as practicable. The interval between two sets of monitoring was not less than 36 hours. The monitoring frequency would be increased in the case of exceedances of Action/Limit Levels if considered necessary by ET. Monitoring frequency would be maintained as far as practicable.

#### SAMPLING DEPTHS & REPLICATION

3.14. During impact water quality monitoring, each station was sampled, and measurements/ water samples was taken at three depths, 1 m below the sea surface, mid-depth, and 1 m above the seabed. For in situ measurements, duplicate readings were made at each water depth at each station. Duplicate water samples were collected at each water depth at each station. All water quality monitoring results were summarized in **Appendix L**.



#### **ACTION AND LIMIT LEVELS**

3.15. The Action and Limit Levels have been set based on the derivation criteria specified in the EM&A Manual. The Action/Limit Levels have been derived and are presented in Table 3.5.

| Table 3.5 | Derived Action and Limit Levels for Water Quality |
|-----------|---|
|           | $\mathbf{v}$                                      |

| Parameters               | Action  | Limit   |
|--------------------------|---|---|
| <b>Construction Phas</b> | e Impact Monitoring                               |   |
| D0 in mg/L               | Surface and Middle                                | Surface and Middle                                |
|                          | 7.30 mg L <sup>-1</sup>                           | 4 mg L <sup>-1</sup>                              |
|                          | Bottom  | Bottom  |
|                          | 7.31 mg L <sup>-1</sup>                           | 2 mg L-1  |
|                          | <u>Tung Lung Chau Fish Culture Zone</u>           | Tung Lung Chau Fish Culture Zone                  |
|                          | 5.1 mgL <sup>-1</sup> or level at control station | 5.0 mgL <sup>-1</sup> or level at control station |
|                          | (Whichever the lower)                             | (Whichever the lower)                             |
| SS in mg/L               | 5.00 mg L <sup>-1</sup> or 20% exceedance of      | 6.00 mg L <sup>-1</sup> or 30% exceedance of      |
| (Depth-averaged)         | value at any impact station                       | value at any impact station                       |
|                          | compared with corresponding data                  | compared with corresponding data                  |
|                          | from control station                              | from control station                              |
| Turbidity in NTU         | 2.41 NTU or 20% exceedance of                     | 2.84 NTU or 30% exceedance of                     |
| (Depth-averaged)         | value at any impact station                       | value at any impact station                       |
|                          | compared with corresponding data                  | compared with corresponding data                  |
|                          | from control station                              | from control station                              |
| First-year Operati       | on Phase Monitoring <sup>iv</sup>                 |   |
| DO in mg/L               | Surface and Middle                                | Surface and Middle                                |
|                          | 7.30 mg L <sup>-1</sup>                           | 4 mg L <sup>-1</sup>                              |
|                          | Bottom  | Bottom  |
|                          | 7.31 mg L <sup>-1</sup>                           | 2 mg L <sup>-1</sup>                              |
|                          | <u>Tung Lung Chau Fish Culture Zone</u>           | Tung Lung Chau Fish Culture Zone                  |
|                          | 5.1 mgL <sup>-1</sup> or level at control station | 5.0 mgL <sup>-1</sup> or level at control station |
|                          | (whichever the lower)                             | (whichever the lower)                             |
| SS in mg/L               | 5.00 mg L-1 or 20% exceedance of                  | 6.00 mg L-1 or 30% exceedance of                  |
| (Depth-averaged)         | valueat any impact station                        | value at any impact station                       |
|                          | compared with corresponding data                  | compared with corresponding data                  |
|                          | from control station                              | from control station                              |
|                          |   |   |

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| <b>V</b> 1       |                                  |                                  |
|------------------|----------------------------------|----------------------------------|
| Turbidity in NTU | 2.41 NTU or 20% exceedance of    | 2.84 NTU or 30% exceedance of    |
| (Depth-averaged) | value at any impact station      | value at any impact station      |
|                  | compared with corresponding data | compared with corresponding data |
|                  | from control station             | from control station             |
| Salinity in PSU  | 34.28 PSU or 9% exceedance of    | 34.60 PSU or 10% exceedance of   |
| (Depth-averaged) | value at any impact station      | value at any impact station      |
|                  | compared with corresponding data | compared with corresponding data |
|                  | from control station             | from control station             |
| Iron in mg/L     | 0.3 mgL <sup>-1</sup>            | 0.3 mgL <sup>-1</sup>            |
| (Depth-averaged) |                                  |                                  |

Notes:

i. "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths.

ii. For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.

iii. For Turbidity, SS, iron and Salinity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.

iv. For the Action and Limit Levels adopted during First-year Operation Phase Monitoring, further review would be made according to the EM&A Manual during Operation Phase.

#### **MONITORING RESULTS AND OBSERVATIONS**

- 3.16. General water quality monitoring at the ten monitoring stations (CE, CF, WSR1, WSR2, WSR3, WSR4, WSR16, WSR33, WSR36 and WSR37) were conducted 1, 3, 6, 8, 10, 13, 15, 17, 20, 22, 24, 27 and 29 September 2022.
- 3.17. One hundred and five (105) of the general water quality monitoring results of suspended solids (SS) obtained had exceeded the Action Level. Eighty-five (85) of the general water quality monitoring results of SS obtained during the reporting period had exceeded the Limit Level.
- 3.18. Investigation on the reason of exceedance has been carried out, where the exceedances of SS on 1, 3, 6, 8, 10, 13, 15, 17, 20, 22, 24, 27 and 29 September 2022 were concluded to be unrelated to the Contract as detailed in the Incident Reports on Action Level or Limit Level Non-compliance along with supporting materials in **Appendix O**.
- 3.19. Monitoring results of 6 key parameters: Salinity, DO, turbidity, SS, pH, and temperature in this reporting, are summarized in **Table 3.6** and **Table 3.7**, and detailed results are presented in **Appendix L.**



Table 3.6

#### Summary of Impact Water Quality Monitoring Results (Mid-Flood)

|           |      | Parameters |                            |        |     |           |               |           |  |  |
|-----------|------|------------|----------------------------|--------|-----|-----------|---------------|-----------|--|--|
| Locations |      | Salinity   | Dissolved Oxygen<br>(mg/L) |        | рН  | Turbidity | Suspended     | Temp.(°C) |  |  |
|           |      | (ppt)      | Surface &<br>Middle        | Bottom |     | (NTU)     | Solids (mg/L) |           |  |  |
|           | Avg. | 31.8       | 8.8                        | 8.8    | 8.2 | 2.9       | 4.0           | 28.6      |  |  |
| CE        | Min. | 29.0       | 8.2                        | 8.3    | 8.0 | 1.5       | 2.5           | 21.5      |  |  |
|           | Max. | 33.8       | 9.9                        | 9.8    | 8.5 | 3.8       | 9.0           | 30.8      |  |  |
|           | Avg. | 31.7       | 8.7                        | 8.7    | 8.2 | 3.3       | 4.5           | 29.2      |  |  |
| CF        | Min. | 29.4       | 8.0                        | 8.0    | 7.9 | 2.1       | 2.5           | 28.0      |  |  |
|           | Max. | 33.3       | 9.6                        | 9.6    | 8.4 | 4.3       | 9.0           | 30.4      |  |  |
|           | Avg. | 31.7       | 8.6                        | 8.6    | 8.2 | 2.1       | 4.4           | 29.1      |  |  |
| WSR1      | Min. | 29.4       | 8.0                        | 8.0    | 8.0 | 1.0       | 2.5           | 27.8      |  |  |
|           | Max. | 33.8       | 9.1                        | 9.1    | 8.4 | 2.8       | 8.0           | 30.9      |  |  |
|           | Avg. | 31.7       | 8.6                        | 8.6    | 8.2 | 2.0       | 4.2           | 29.2      |  |  |
| WSR2      | Min. | 29.0       | 8.1                        | 8.1    | 8.1 | 1.0       | 2.5           | 27.9      |  |  |
|           | Max. | 33.8       | 9.3                        | 9.3    | 8.3 | 2.5       | 10.0          | 30.9      |  |  |
|           | Avg. | 31.9       | 8.8                        | 8.8    | 8.2 | 2.1       | 4.7           | 29.2      |  |  |
| WSR3      | Min. | 29.9       | 8.2                        | 8.2    | 8.0 | 1.0       | 2.5           | 27.8      |  |  |
|           | Max. | 33.8       | 9.9                        | 9.9    | 8.4 | 2.6       | 23.0          | 31.0      |  |  |
|           | Avg. | 31.6       | 8.6                        | 8.6    | 8.2 | 2.0       | 4.6           | 29.2      |  |  |
| WSR4      | Min. | 29.3       | 8.0                        | 8.1    | 8.1 | 0.8       | 2.5           | 28.0      |  |  |
|           | Max. | 33.4       | 9.2                        | 9.2    | 8.4 | 2.6       | 10.0          | 30.9      |  |  |
|           | Avg. | 31.8       | 8.6                        | 8.6    | 8.2 | 2.2       | 4.5           | 29.2      |  |  |
| WSR16     | Min. | 29.3       | 7.9                        | 7.9    | 8.0 | 1.2       | 2.5           | 28.0      |  |  |
|           | Max. | 33.6       | 9.1                        | 9.0    | 8.5 | 2.5       | 15.0          | 30.4      |  |  |
|           | Avg. | 31.8       | 8.8                        | 8.8    | 8.2 | 2.1       | 4.6           | 29.1      |  |  |
| WSR33     | Min. | 29.4       | 8.0                        | 8.0    | 8.0 | 1.4       | 2.5           | 28.0      |  |  |
|           | Max. | 33.4       | 9.8                        | 9.9    | 8.6 | 2.7       | 11.0          | 30.5      |  |  |
|           | Avg. | 31.8       | 8.7                        | 8.7    | 8.2 | 2.1       | 4.8           | 29.1      |  |  |
| WSR36     | Min. | 29.4       | 8.1                        | 8.1    | 8.0 | 1.2       | 2.5           | 27.8      |  |  |
|           | Max. | 33.7       | 9.8                        | 9.7    | 8.4 | 2.6       | 12.0          | 31.0      |  |  |
|           | Avg. | 31.8       | 8.6                        | 8.6    | 8.2 | 2.0       | 4.4           | 29.2      |  |  |
| WSR37     | Min. | 29.9       | 8.1                        | 8.1    | 8.0 | 1.0       | 2.5           | 28.1      |  |  |
|           | Max. | 33.4       | 9.4                        | 9.3    | 8.4 | 2.7       | 12.0          | 30.5      |  |  |

Notes:

"Avg", "Min" and "Max" is the average, minimum and maximum respectively of the data from measurements conducted i. under mid-flood and mid-ebb tides at three water depths, except that of DO where the data for "Surface & Middle" and "Bottom" are calculated separately.

Measurement data of Suspending Solids would be rounding to 2.5mg/L if the value was less than 2.5mg/L to facilitate data ii. analysing.



Table 3.7

#### le 3.7 Summary of Impact Water Quality Monitoring Results (Mid-Ebb)

|           |      | Parameters |                     |                            |     |           |               |           |  |  |
|-----------|------|------------|---------------------|----------------------------|-----|-----------|---------------|-----------|--|--|
| Locations |      | Salinity   |                     | Dissolved Oxygen<br>(mg/L) |     | Turbidity | Suspended     | Temp.(°C) |  |  |
|           |      | (ppt)      | Surface &<br>Middle | Bottom                     | рН  | (NTU)     | Solids (mg/L) |           |  |  |
|           | Avg. | 31.8       | 8.7                 | 8.8                        | 8.3 | 3.2       | 4.6           | 29.2      |  |  |
| CE        | Min. | 29.7       | 8.1                 | 8.1                        | 8.1 | 1.8       | 2.5           | 27.8      |  |  |
|           | Max. | 33.5       | 9.8                 | 9.8                        | 8.4 | 4.5       | 12.0          | 30.6      |  |  |
|           | Avg. | 31.8       | 8.9                 | 8.9                        | 8.2 | 2.7       | 4.5           | 29.2      |  |  |
| CF        | Min. | 29.4       | 8.2                 | 8.3                        | 8.0 | 1.7       | 2.5           | 27.7      |  |  |
|           | Max. | 33.9       | 9.7                 | 9.7                        | 8.4 | 3.6       | 11.0          | 30.6      |  |  |
|           | Avg. | 31.8       | 8.7                 | 8.7                        | 8.2 | 2.1       | 5.4           | 29.2      |  |  |
| WSR1      | Min. | 29.9       | 8.1                 | 8.2                        | 8.1 | 0.9       | 2.5           | 27.8      |  |  |
|           | Max. | 33.6       | 9.8                 | 9.7                        | 8.4 | 2.5       | 17.0          | 30.8      |  |  |
|           | Avg. | 31.7       | 8.6                 | 8.6                        | 8.2 | 2.1       | 5.8           | 29.1      |  |  |
| WSR2      | Min. | 29.4       | 8.0                 | 7.9                        | 8.0 | 1.2       | 2.5           | 27.8      |  |  |
|           | Max. | 33.8       | 9.2                 | 9.2                        | 8.3 | 2.7       | 20.0          | 30.7      |  |  |
|           | Avg. | 31.9       | 8.6                 | 8.6                        | 8.2 | 2.1       | 6.2           | 29.2      |  |  |
| WSR3      | Min. | 29.7       | 8.2                 | 8.3                        | 8.0 | 1.1       | 2.5           | 27.9      |  |  |
|           | Max. | 33.8       | 9.4                 | 9.4                        | 8.5 | 2.7       | 21.0          | 30.8      |  |  |
|           | Avg. | 31.7       | 8.6                 | 8.6                        | 8.2 | 2.1       | 5.9           | 29.0      |  |  |
| WSR4      | Min. | 29.5       | 8.1                 | 8.1                        | 8.0 | 1.0       | 2.5           | 27.4      |  |  |
|           | Max. | 33.8       | 9.4                 | 9.3                        | 8.4 | 2.7       | 18.0          | 30.3      |  |  |
|           | Avg. | 31.9       | 8.7                 | 8.7                        | 8.2 | 2.1       | 4.8           | 29.2      |  |  |
| WSR16     | Min. | 29.7       | 8.1                 | 8.1                        | 8.1 | 1.0       | 2.5           | 27.8      |  |  |
|           | Max. | 33.8       | 9.3                 | 9.4                        | 8.5 | 2.8       | 11.0          | 30.9      |  |  |
|           | Avg. | 32.0       | 8.7                 | 8.7                        | 8.2 | 2.1       | 5.2           | 29.3      |  |  |
| WSR33     | Min. | 30.0       | 8.1                 | 8.1                        | 7.9 | 0.9       | 2.5           | 27.8      |  |  |
|           | Max. | 33.8       | 9.5                 | 9.5                        | 8.4 | 2.7       | 12.0          | 30.9      |  |  |
|           | Avg. | 31.6       | 8.8                 | 8.8                        | 8.2 | 2.1       | 5.3           | 29.2      |  |  |
| WSR36     | Min. | 29.4       | 8.2                 | 8.3                        | 8.0 | 1.1       | 2.0           | 27.7      |  |  |
|           | Max. | 33.5       | 9.2                 | 9.3                        | 8.4 | 2.7       | 12.0          | 30.5      |  |  |
|           | Avg. | 31.8       | 8.8                 | 8.8                        | 8.2 | 2.1       | 5.0           | 29.1      |  |  |
| WSR37     | Min. | 29.6       | 8.2                 | 8.2                        | 7.9 | 0.9       | 2.5           | 27.7      |  |  |
|           | Max. | 33.6       | 9.6                 | 9.6                        | 8.4 | 2.7       | 11.0          | 30.7      |  |  |

Notes:

i. "Avg", "Min" and "Max" is the average, minimum and maximum respectively of the data from measurements conducted under mid-flood and mid-ebb tides at three water depths, except that of DO where the data for "Surface & Middle" and "Bottom" are calculated separately.

ii. Measurement data of Suspending Solids would be rounding to 2.5mg/L if the value was less than 2.5mg/L to facilitate data analysing.



# 4. WASTE

4.1. The waste generated from this Contract includes inert construction and demolition (C&D) materials, and non-inert C&D materials. Non-inert C&D materials are made up of general refuse, vegetative wastes and recyclable wastes such as plastics and paper/cardboard packaging waste. Steel materials generated from the Contract are also grouped into non-inert C&D materials as the materials were not disposed of with other inert C&D materials. With reference to relevant handling records and trip tickets of this Contract, the quantities of different types of waste generated in the reporting month are summarized in **Table 4.1**. Details of cumulative waste management data are presented as a waste flow table in **Appendix H**.

|                    | Actu                           | Actual Quantities of Inert C&D Materials Generated Monthly |                              |                                |                               |                  |             | Actual Quantities of C&D Wastes Generated Monthly |                         |                   |                                   |
|--------------------|--------------------------------|--|------------------------------|--------------------------------|-------------------------------|------------------|-------------|---|-------------------------|-------------------|-----------------------------------|
| Reporting<br>Month | Total<br>Quantity<br>Generated | Hard Rock<br>and Large<br>Broken<br>Concrete               | Reused in<br>the<br>Contract | Reused in<br>other<br>Projects | Disposed<br>as Public<br>Fill | Imported<br>Fill | Metals      | Paper /<br>cardboard<br>packaging                 | Plastics <sup>(1)</sup> | Chemical<br>Waste | Others, e.g.<br>general<br>refuse |
|                    | (in '000kg)                    | (in '000kg)  | (in '000kg)                  | (in '000kg)                    | (in '000kg)                   | (in '000kg)      | (in '000kg) | (in '000kg)                                       | (in '000kg)             | (in '000kg)       | (in '000kg)                       |
| September<br>2022  | 13842.840                      | 0.000  | 0.000                        | 0.000                          | 13842.840                     | 0.000            | 0.000       | 0.170   | 0.090                   | 0.000             | 196.910                           |

Notes: (1) Plastics refer to plastic bottles / containers, plastic sheets / foam from packaging material



# 5. LANDFILL GAS MONITORING

#### **MONITORING REQUIREMENT**

5.1. In accordance with Section 11 of the EM&A Manual, monitoring of landfill gas is required for construction works within the 250m Consultation Zone. Part of the desalination plant and the indicative area of natural slope mitigation works fall within the SENT Landfill Extension Consultation Zone; and part of the 1,200 mm diameter fresh water mains along Wan Po Road falls within the SENT Landfill and SENT Landfill Extension Consultation Zones, TKO Stage II/III Restored Landfill and TKO Stage I Restored Landfill Consultation Zones.

#### **MONITORING LOCATION**

- 5.2. Monitoring of oxygen, methane, carbon dioxide and barometric pressure would be performed for excavations at 1m depth or more within the consultation Zone.
- 5.3. During construction of works within the consultation zones, excavations of 1m depth or more was monitored:
  - At the ground surface before excavation commences;
  - Immediately before any worker enters the excavation;
  - At the beginning of each working day for the entire period the excavation remains open; and
  - Periodically through the working day whilst workers are in the excavation.
- 5.4. For excavations between 300mm and 1m deep, measurements were carried out:
  - Directly after the excavation has been completed; and
  - Periodically whilst the excavation remains open.

#### **MONITORING PROGRAMME**

5.5. Since part of the desalination plant (Wan Po Road and MIC compound/Basketball Court) and the indicative area of natural slope mitigation works fall within the SENT Landfill Extension Consultation Zone in this contract (Figure 5.1), landfill gas monitoring would be required for Wan Po Road and MIC compound/Basketball Court (Figure 5.2) if excavations were conducted at more than 300mm deep. Although SENT Landfill Extension has commenced operation since November 2021, no excavation works were conducted at MIC compound/Basketball Court. Hence no landfill gas monitoring would be scheduled for MIC compound/Basketball Court at the current stage.

#### **MONITORING LOCATION**

5.6. The area required to be monitored for landfill gas in the reporting period is shown in **Figure 5.2**.



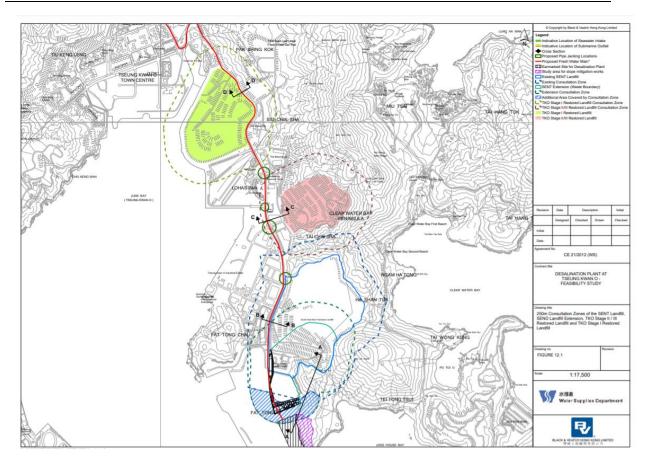


Figure 5.1 Overview of the SENT Extension Consultation Zone and the Contract Site Area

#### **MONITORING PARAMETERS**

- 5.7. LFG monitoring was carried out to identify any migration between the landfill and the Contract and to ensure the safety of the construction, operation and maintenance personnel working on-site, visitors and any other person within the Contract area.
- 5.8. The following parameters were monitored:
  - Methane
  - Oxygen
  - Carbon Dioxide
  - Barometric Pressure
- 5.9. Action and Limit Level are provided in **Table 5.1**.

| Table 5.1Action and Limit Level for Landfill Gas Monitoring Equipme | ent |
|---|-----|
|---|-----|

|                                   |                       | <u> </u>              |
|-----------------------------------|-----------------------|-----------------------|
| Parameters                        | Action Level          | Limit Level           |
| Oxygen (O <sub>2</sub> )          | <19% 02               | <19% O <sub>2</sub>   |
| Methane (CH <sub>4</sub> )        | >10% LEL              | >20% LEL              |
| Carbon Dioxide (CO <sub>2</sub> ) | >0.5% CO <sub>2</sub> | >1.5% CO <sub>2</sub> |

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#### **MONITORING EQUIPMENT**

- 5.10. Landfill Gas monitoring was carried out using intrinsically-safe, portable multi-gas monitoring instruments. The gas monitoring equipment is:
  - Complying with the Landfill Gas Hazard Assessment Guidance Note as intrinsically safe;
  - Capable of continuous barometric pressure and gas pressure measurements;
  - Normally operated in diffusion mode unless required for spot sampling, when it should be capable of operating by means of an aspirator or pump;
  - Having low battery, fault and over range indication incorporated;
  - Capable of storing monitoring data, and shall be capable of being downloaded directly;
  - Measure in the following ranges:

| methane             | 0-100% Lower Explosion Limit (LEL) and 0-100% v/v; |
|---------------------|--|
| oxygen              | 0-25% v/v;   |
| carbon dioxide      | 0-5% v/v; and                                      |
| barometric pressure | mBar (absolute)                                    |

• alarm (both audibly and visually) in the event that the concentrations of the following are exceeded:

| methane             | >10% LEL;       |
|---------------------|-----------------|
| oxygen              | <19%            |
| carbon dioxide      | >0.5% by volume |
| barometric pressure | mBar (absolute) |

5.11. Monitoring equipment used in the reporting period are summarized in **Table 5.2**. The Landfill Gas monitoring equipment calibration certificate is presented in **Appendix N**.

#### Table 5.2Landfill Gas Monitoring Equipment

| Equipment                                     | Brand and Model        | Calibration Expiry Date |
|---|------------------------|-------------------------|
| Doutchle Cog Datastar                         | CNU DOE00 25402000 /24 | 28 September 2022       |
| Portable Gas Detector GMI PS500 – 25492809/21 | 1 September 2023       |                         |



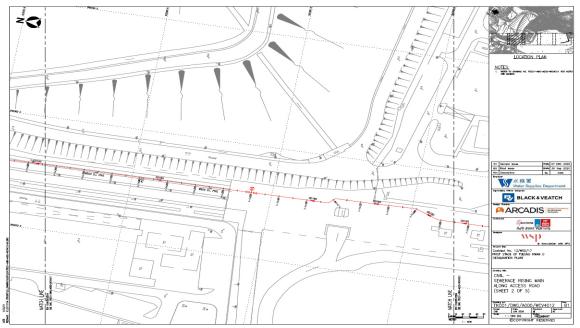


Figure 5.2Location Map for Landfill Gas Monitoring at Wan Po Road

#### MONITORING RESULTS AND OBSERVATIONS

5.12. In this reporting period, 46 times of landfill gas monitoring was conducted during excavations at 1m depth or more within the consultation zone and whenever workers entered the excavation on the day at Wan Po Road (Ch1+513– Ch1+625). No exceedance of action and limit levels for methane, oxygen and carbon dioxide was recorded. Detail of landfill gas monitoring results are presented in **Appendix L**.



# 6. SUMMARY OF EXCEEDANCE, COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS

6.1. The Environmental Complaint Handling Procedure is shown in below **Figure 6.1**:

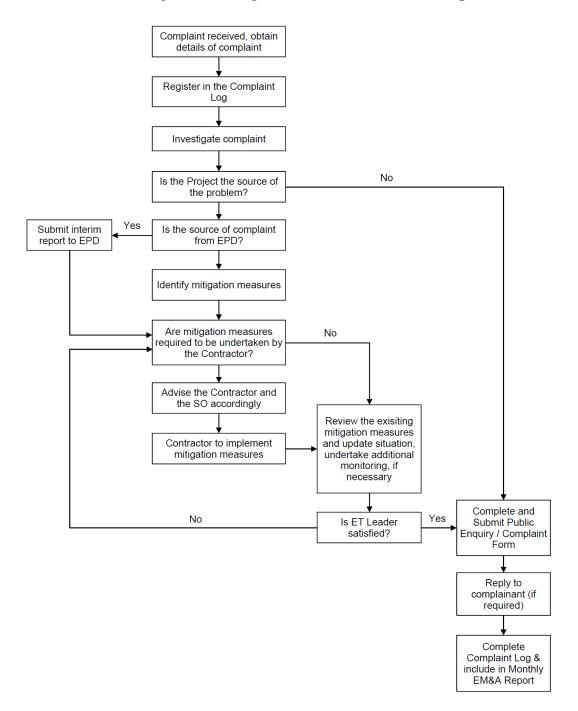


Figure 6.1 Environmental Complaint Handling Procedures



- 6.2. No noise monitoring was conducted during the reporting period since there are no Contract-related construction activities undertaken within a radius of 300m from the monitoring locations. No action Level exceedance for construction noise monitoring was recorded in the reporting month.
- 6.3. General water quality monitoring at the ten monitoring stations (CE, CF, WSR1, WSR2, WSR3, WSR4, WSR16, WSR33, WSR36 and WSR37) were conducted on 1, 3, 6, 8, 10, 13, 15, 17, 20, 22, 24, 27 and 29 September 2022.
- 6.4. One hundred and five (105) of the general water quality monitoring results of suspended solids (SS) obtained had exceeded the Action Level. Eighty-five (85) of the general water quality monitoring results of SS obtained during the reporting period had exceeded the Limit Level.
- 6.5. Investigation on the reason of exceedance has been carried out, where the exceedances of SS on 1, 3, 6, 8, 10, 13, 15, 17, 20, 22, 24, 27 and 29 September 2022 were concluded to be unrelated to the Contract as detailed in the Incident Reports on Action Level or Limit Level Non-compliance along with supporting materials in **Appendix O**.
- 6.6. In this reporting period, 46 times of landfill gas monitoring was conducted in the reporting month. No action and limit level exceedance was recorded in the reporting period.
- 6.7. No environmental complaint, notification of summons and prosecution was received in the reporting month. Statistics on complaint and notification of summons and prosecution are summarized in **Appendix J**.



# 7. EM&A SITE INSPECTION

7.1. Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting period, site inspections were carried out on 6, 13, 20 and 30 September 2022 at the site portions listed in **Table 7.1** below.

|                   | •                      |               |
|-------------------|------------------------|---------------|
| Date              | Inspected Site Portion | Time          |
| 6 September 2022  | TKO Area 137           | 14:30 - 15:30 |
| 13 September 2022 | TKO Area 137           | 14:30 - 16:00 |
| 20 September 2022 | TKO Area 137           | 14:30 - 15:30 |
| 30 September 2022 | TKO Area 137           | 09:15 - 12:30 |

| Table 7.1 | Summaries of Site Inspection Record |
|-----------|-------------------------------------|
|           | building of bite inspection record  |

- 7.2. Joint site inspections with IEC were carried out on 6, 13, 20 and 30 September 2022.
- 7.3. Environmental deficiencies were observed during weekly site inspection. Key observations during the site inspections and during the reporting period are summarized in **Table 7.2**.

| Date                 | Environmental Observations   | Follow-up Status         |
|----------------------|--|--------------------------|
| 6 September<br>2022  | 1. Chemicals found near the ActiDaff Building shall be stored properly.  | 1. Chemical was removed. |
| 13 September<br>2022 | 1. Chemical containers found near the R.O.<br>Building shall be stored on a drip tray or<br>proper chemical storage. | 1. Chemical was removed. |
| 20 September<br>2022 | No major observations were recorded on the reporting day.  | Nil                      |
| 30 September<br>2022 | 1. Chemical containers found in the R.O<br>Building shall be stored on a drip tray or<br>with proper storage.        | 1. Chemical was removed. |

Table 7.2Site Observations

7.4. According to the EIA Study Report, Environmental Permit, contract documents and EM&A Manual, the mitigation measures detailed in the documents should be implemented as much as practical during the reporting period. An updated Implementation Status of Environmental Mitigation Measures (EMIS) is provided in **Appendix C**. Site inspection proforma of the reporting period is provided in **Appendix I**.



## 8. FUTURE KEY ISSUES

- 8.1. Works to be undertaken in the next reporting month are:
  - Adjacent Chemical Building Underground utility (UU) Construction Work
  - Adjacent ActiDAFF UU Construction Work
  - Adjacent RO Building UU Construction Work
  - 132 kV temporary emergency vehicular access (eva) Construction
  - Product Water Storage Tank (PWST) UU construction work
  - Adjacent PWST carbon steel pipe installation work
  - Adjacent PWST UU construction work
  - 132 kV Substation (Hill Side) Backfill
  - Post Treatment Building (PTB) UU Construction Work
  - Construction of parapet and internal finishes at 2/F, 3/F and 4/F and Construction of roof of lift shaft at Administration Building
  - Installation of hoarding on 2/F and waterproofing works at 1/F at Administration Building
  - Steel fixing works for segment 6, segment 4 and segment 3 and construction of stair tower at Inspection corridor
  - Water proofing work on roof of Cartridge Filter Plant Room and Construction of kiosks and installation of louvre at ActiDAFF
  - Covering the wall opening and water proofing works at the roof of Chemical building
  - Dredging for diffuser pipe caisson removal and Glass Reinforced Plastics (GRP) Pipe installation at Outfall Shaft
  - Shaft backfill rock and excavation and lateral support (ELS) removal at Intake Shaft
  - Staircases and internal finishing, puddle pipe installation at Combined Shaft
  - Staircases and internal finishing, overhead crane installation at Pump room
  - Excavation at slope toe and access erection, mini piles construction at Clear Water Bay Country Park
  - Trench excavation, structure installation, Grouting and backfill at Open Channel
  - E&M works ActiDAFF (cell 1, 3, 5, 6, 7) Scaffolding, installation of mechanical equipment and piping
  - E&M works PWST Installation of building services, Installation of mechanical equipment, steel pipe
  - E&M works PTB Installation of building services, Lifting of lime silo, filter press
  - E&M works Administration Building Installation of building services
  - E&M works Chemical Building Installation of building services, Lifting of steel tanks

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- E&M works RO building Installation of building services, electrical switchboard, installation of mechanical equipment, steel pipe, GRP pipe, Lifting of electrical switchboard
- E&M works MECCP Installation of chillers, building services, electrical switchboard
- E&M works PWST Installation of building services, Installation of mechanical equipment, steel pipe
- E&M works PTB Installation of building services, Lifting of lime silo, filter press
- E&M works Administration Building Installation of building services
- E&M works Chemical Building Installation of building services, Lifting of steel tanks
- 8.2. The major environmental impacts brought by the above construction works will include:
  - Construction dust and noise generation from excavation and construction works;
  - Waste generation from construction activities; and
  - Impact on water quality from marine construction works and inland construction works.
- 8.3. The key environmental mitigation measures for the Project in the coming reporting period associated with the above construction works will include:
  - Dust suppression by regular wetting and water spraying for construction works
  - Reduction of noise from equipment and machinery on-site by regular checking of on-site plant/vehicle to ensure proper functioning
  - Sorting and storage of general refuse and construction waste
  - Deployment of temporary silt curtain in the area where marine construction works were conducted and deployment of water sedimentation tanks for treatment of wastewater at inland and marine areas before discharge



#### 9. CONCLUSIONS AND RECOMMENDATIONS

- 9.1. This is the 31<sup>st</sup> Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 1 September to 30 September 2022, in accordance with the EM&A Manual and the requirement under FEP-01/503/2015/A.
- 9.2. No noise monitoring was conducted in the reporting period due to the over distant monitoring station from the works location, in which construction activities were not undertaken within a radius of 300m from the monitoring locations.
- 9.3. The EM&A works for water quality were conducted during the reporting period in accordance with the EM&A Manual.
- 9.4. One hundred and five (105) of the general water quality monitoring results of suspended solids (SS) obtained had exceeded the Action Level. Eighty-five (85) of the general water quality monitoring results of SS obtained during the reporting period had exceeded the Limit Level.
- 9.5. Investigation on the reason of exceedance has been carried out, where the exceedances of SS on 1, 3, 6, 8, 10, 13, 15, 17, 20, 22, 24, 27 and 29 September 2022 were concluded to be unrelated to the Contract as detailed in the Incident Reports on Action Level or Limit Level Non-compliance along with supporting materials in **Appendix O**.
- 9.6. It was concluded that all exceedances recorded in the reporting month were unrelated to the project.
- 9.7. In this reporting period, 46 times of landfill gas monitoring was conducted in the reporting month. No action and limit level exceedance was recorded in the reporting period.
- 9.8. Weekly environmental site inspection was conducted during the reporting period. No major deficiency was observed during site inspection. The environmental performance of the project was therefore considered satisfactory.
- 9.9. According to the environmental site inspections performed in the reporting month, the Contractor is reminded to pay attention on maintaining proper materials storage, site hygiene and dust suppression mitigation measures.
- 9.10. No environmental complaint, notification of summons and prosecution was received in the reporting period.
- 9.11. The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

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## Appendix A

## **Construction Programme**

| ity ID      | Activity Name   | Baseline<br>Duration | Baseline Start | Baseline Finish | Remaining<br>Duration | Actual / Planned<br>Start | Actual / Planned<br>Finish | Actual %<br>Complete | Variance<br>Finish Date | Total<br>Float | N D     | JF       | MA     | or M   | 2020        | I A S     |
|-------------|---|----------------------|----------------|-----------------|-----------------------|---------------------------|----------------------------|----------------------|-------------------------|----------------|---------|----------|--------|--------|-------------|-----------|
| roject Prog | amme Updated as at 30 September 2022 (Level 3   | 2)                   |                |                 |                       |                           |                            |                      |                         |                |         | JF       |        | or M   | J Jul       | AS        |
| Key Dates   |   | -/                   |                |                 |                       |                           |                            |                      |                         |                |         |          |        |        |             |           |
|             | ment and Completion Date  |                      |                |                 |                       |                           |                            |                      |                         |                |         |          |        |        |             |           |
| KD0000100   | Letter of Acceptance  | 0                    | 15-Nov-19      |                 | 0                     | 15-Nov-19 A               |                            | 100%                 | 0                       |                | 💲 Lette | r of Acc | ceptar | ice    |             |           |
| KD0000110   | Commencement of the Works   | 0                    | 30-Dec-19      |                 | 0                     | 30-Dec-19 A               |                            | 100%                 | 0                       |                | \$      | Comm     | nence  | ment c | of the V    | Vorks     |
| KD0000120   | Completion of the Works (1170 Days)   | 0                    |                | 13-Mar-23       | 0                     |                           | 13-Mar-23                  | 0%                   | 0                       | 0              |         |          |        |        |             |           |
| KD0000130   | Revised Completion of the Works (261 Days EOT Granted)  | 0                    |                |                 | 261                   | 14-Mar-23                 | 29-Nov-23                  | 0%                   |                         | 0              |         |          |        |        |             |           |
| KD0000510   | Planned Completion of the Works   | 0                    |                |                 | 0                     |                           | 29-Dec-23                  | 0%                   |                         | -30            |         |          |        |        |             |           |
| KD0000520   | Target Completion of the Works (Best Endeavour)   | 0                    |                |                 | 0                     |                           | 30-Sep-23                  | 0%                   |                         | 60             |         |          |        |        |             |           |
| xecutive Su | Immaries  |                      |                |                 |                       |                           |                            |                      |                         |                |         |          |        |        |             |           |
| Preliminary |   |                      |                |                 |                       |                           |                            |                      |                         |                |         |          |        |        |             |           |
| ES0001000   | Mobilization and Preliminary Set Up   | 191                  | 30-Dec-19      | 07-Jul-20       | 0                     | 30-Dec-19 A               | 20-Jul-20 A                | 100%                 | -13                     |                |         |          |        |        |             | Mobiliza  |
|             | AIP and DDA   |                      |                |                 |                       |                           |                            |                      |                         |                |         |          |        |        |             |           |
| ES0001010   | AIP Civil Design Submission and Approval  | 330                  | 30-Dec-19      | 23-Nov-20       | 0                     | 30-Dec-19 A               | 31-Aug-20 A                | 100%                 | 84                      |                |         |          |        |        |             | <b>—</b>  |
| ES0001020   | DDA Civil Design Submission and Approval  | 414                  | 28-Feb-20      | 16-Apr-21       | 0                     | 22-Jan-20 A               | 01-Sep-21 A                | 100%                 | -138                    |                |         | F        | _      |        |             |           |
|             | AIP and DDA   |                      |                |                 |                       |                           |                            |                      |                         |                |         |          |        |        | 1           |           |
| ES0002000   | M&E AIP Process Mechanical Submission and Approval  | 477                  | 30-Dec-19      | 19-Apr-21       | 0                     | 30-Dec-19 A               | 22-Dec-20 A                | 100%                 | 118                     |                |         |          |        |        | 1<br>1<br>1 |           |
| ES0002010   | M&E DDA Process Mechanical Submission and Approval  | 679                  | 08-Feb-20      | 17-Dec-21       | 0                     | 21-Jul-20 A               | 02-Sep-21 A                | 100%                 | 106                     |                |         | _        |        |        |             |           |
| ES0002020   | M&E AIP Instrumentation & Control Submission and Approval   | 607                  | 31-Jan-20      | 28-Sep-21       | 0                     | 04-Feb-20 A               | 25-Feb-20 A                | 100%                 | 581                     |                |         | -        |        |        |             |           |
| S0002030    | M&E DDA Instrumentation & Control Submission and Approval   | 514                  | 22-Jul-20      | 17-Dec-21       | 61                    | 13-Feb-21 A               | 30-Nov-22                  | 99.35%               | -348                    | 74             |         |          |        |        | C           |           |
| S0002050    | M&E DDA Electrical and Renewable Energy Submission and Approval   | 382                  | 16-Aug-20      | 01-Sep-21       | 0                     | 17-Aug-20 A               | 31-Dec-20 A                | 100%                 | 244                     |                |         |          |        |        |             |           |
| ES0002060   | M&E AIP Building Services Submission and Approval   | 226                  | 30-Dec-19      | 11-Aug-20       | 0                     | 30-Dec-19 A               | 30-Oct-20 A                | 100%                 | -80                     |                |         |          |        |        |             |           |
| S0002065    | M&E Design Basis & Civil Guidance Dwg   | 112                  | 30-Dec-19      | 19-Apr-20       | 0                     | 30-Dec-19 A               | 24-Jul-20 A                | 100%                 | -96                     |                | _       |          |        | 1      |             | M&E C     |
| S0002070    | M&E DDA Building Services Submission and Approval   | 306                  | 28-Feb-20      | 29-Dec-20       | 0                     | 01-Mar-20 A               | 30-Jun-21 A                | 100%                 | -183                    |                |         | F        | _      |        |             |           |
| ES0002085   | M&E AIP Site Electrical Submission and Approval   | 155                  | 09-Jun-20      | 10-Nov-20       | 0                     | 21-Mar-20 A               | 22-Jul-20 A                | 100%                 | 111                     |                |         |          |        |        |             |           |
| S0002090    | M&E DDA Lift Submission and Approval  | 140                  | 27-Aug-20      | 13-Jan-21       | 0                     | 01-Oct-20 A               | 12-May-21 A                | 100%                 | -119                    |                |         |          |        |        |             |           |
| ES0002095   | M&E DDA Site Electrical Submission and Approval   | 140                  | 11-Nov-20      | 30-Mar-21       | 0                     | 23-Jul-20 A               | 04-Jun-21 A                | 100%                 | -66                     |                |         |          |        |        |             |           |
| ES0002100   | M&E DDA T&C Design Submission and Approval  | 155                  | 29-Mar-22      | 30-Aug-22       | 138                   | 01-Aug-21 A               | 15-Feb-23                  | 50%                  | -169                    | -27            |         |          |        |        |             |           |
|             | t of Major Plant & Equipment Schedule   |                      |                |                 |                       |                           |                            |                      |                         |                |         |          |        |        |             |           |
| ES0002320   | M&E Procurement of Major Plant, Equipment, Material and Delivery  | 901                  | 14-Mar-20      | 31-Aug-22       | 33                    | 04-Feb-20 A               | 02-Nov-22                  | 95.63%               | -63                     | 89             |         |          |        |        |             |           |
| ES2420      | M&E Procurement of Mechanical Equipment - Intake Pumps  | 595                  | 18-May-20      | 02-Jan-22       | 0                     | 04-Feb-20 A               | 11-May-22 A                | 100%                 | -129                    |                |         |          |        |        |             |           |
| ES2430      | M&E Procurement of Mechanical Equipment - ActiDAFF<br>Underdrain  | 333                  | 30-Oct-20      | 27-Sep-21       | 0                     | 02-Aug-20 A               | 14-Mar-22 A                | 100%                 | -168                    |                |         |          |        |        |             |           |
| ES2440      | M&E Procurement of Mechanical Equipment - ActiDAFF<br>Media   | 298                  | 15-Mar-21      | 06-Jan-22       | 15                    | 23-Jul-20 A               | 15-Oct-22                  | 98.07%               | -282                    | 29             |         |          |        |        |             |           |
| ES2450      | M&E Procurement of Mechanical Equipment - RO and ERD<br>Rack  | 274                  | 22-Feb-21      | 22-Nov-21       | 0                     | 22-Jul-20 A               | 28-Dec-21 A                | 100%                 | -36                     |                |         |          |        |        |             |           |
| S2460       | M&E Procurement of Mechanical Equipment - RO Membrane   | 755                  | 29-Mar-20      | 22-Apr-22       | 91                    | 12-Feb-20A                | 30-Dec-22                  | 85%                  | -252                    | 128            |         | -        | -      |        |             |           |
| ES2470      | M&E Procurement of Electrical Equipment - CLP Substation<br>for LV Switchboard / Genset / Building Services | 300                  | 14-Mar-20      | 07-Jan-21       | 0                     | 14-Mar-20 A               | 28-Feb-21 A                | 100%                 | -52                     |                |         |          |        |        |             |           |
| 32kV Subs   | tation  |                      | 1              |                 |                       |                           |                            |                      |                         |                |         |          |        |        |             |           |
| ES0001460   | Excavation and Formation Works for 132kV Substation   | 15                   | 16-Mar-20      | 30-Mar-20       | 0                     | 19-Feb-20 A               | 23-Apr-20 A                | 100%                 | -24                     |                |         |          |        | Exc    | avatio      | on and Fo |
| S0001470    | Construction of 132kV Substation  | 233                  | 31-Mar-20      | 18-Nov-20       | 0                     | 27-Apr-20 A               | 30-Dec-20 A                | 100%                 | -42                     |                |         |          | L      |        | 1<br>       |           |
| ES0001480   | Architectural Finishes for 132kV Substation   | 126                  | 11-Sep-20      | 14-Jan-21       | 0                     | 23-Nov-20 A               | 22-Mar-21 A                | 100%                 | -67                     |                |         |          |        |        |             |           |
| S0002240    | M&E Installation of 132kV Substation  | 93                   | 20-Nov-20      | 20-Feb-21       | 0                     | 01-Dec-20 A               | 22-Mar-21 A                | 100%                 | -30                     |                |         |          |        |        |             |           |
|             |   |                      | 1              | 1               | 1                     | 1                         | 1                          | 1                    |                         | 1              |         |          |        |        |             |           |
| Combine Sh  |   |                      |                |                 |                       |                           |                            |                      |                         |                | 1 1 1   |          |        |        |             |           |

| Summary Bar            | Actual Work  | <b>◇</b> | ♦ Target Milestone | Page 1 of 4 |   |
|------------------------|--------------|----------|--------------------|-------------|---|
| Actual Level of Effort | Early Bar    | •        | ♦ Milestone        |             | Α |
| Target Bar             | Critical Bar |          |                    |             |   |

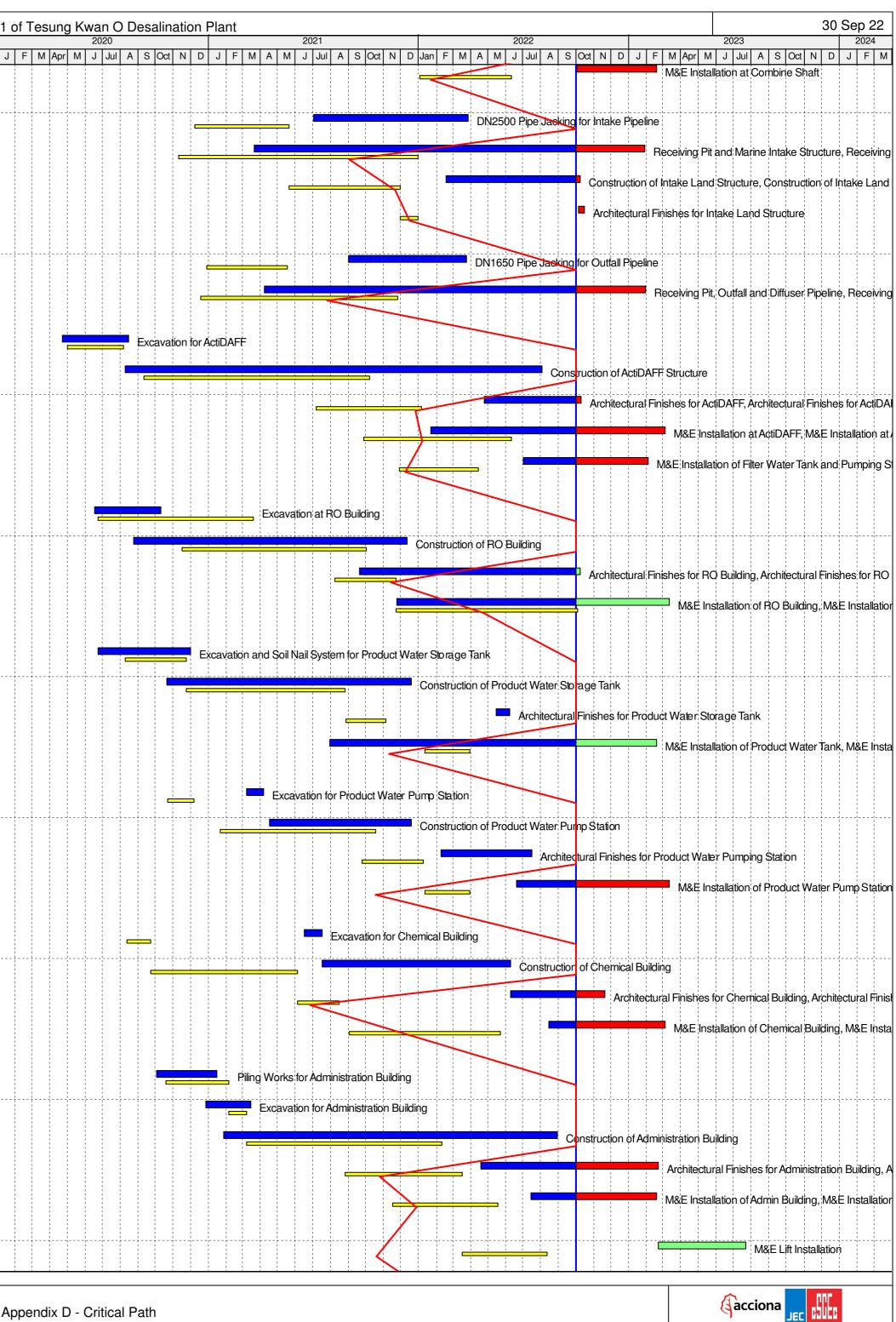
|         | Variance    | Total |                        | 2020   |  | 2021                       | 2022   | 2023 2024  |
|---------|-------------|-------|------------------------|--|--|----------------------------|--|--|
| mplete  | Finish Date | Float | N D J F M Apr M        | J Jul A S Oct N D J  | JFMAMJ   | J Jul A S Oct N D          | Jan F M A M J Jul A S Oct N I                | D J F M Apr M J Jul A S Oct N D J F M  |
|         |             |       |                        |  |  |                            |  |  |
|         |             |       |                        |  |  |                            |  |  |
| 100%    | 0           |       | S Letter of Acceptance |  |  |                            |  |  |
|         |             |       |                        |  |  |                            |  |  |
| 100%    | 0           |       | Commencement           | of the Works   |  |                            |  |  |
| 0%      | 0           | 0     |                        |  | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ |                            |  | Scompletion of the Works (1170 Days)   |
| 0%      |             | 0     |                        |  |  |                            |  | Revised Com  |
|         |             |       |                        |  |  |                            |  |  |
| 0%      |             | -30   |                        |  |  |                            |  | Planned (  |
| 0%      |             | 60    |                        |  |  |                            |  | <ul> <li>Target Completion of</li> </ul>   |
|         |             |       |                        |  |  |                            |  |  |
|         |             |       |                        | ·····  |  |                            |  |  |
| 100%    | -13         |       |                        | Mobilization and Prelir  | ninary Set Up  |                            |  |  |
|         |             |       |                        |  |  |                            |  |  |
| 100%    | 84          |       |                        | AIP C  | Civil Design Submiss                                 | sion and Approval          |  |  |
| 100%    | -138        |       |                        |  |  |                            | sign Submission and Approval                 |  |
| 10070   | 100         |       |                        |  |  |                            |  |  |
| 100%    | 118         |       |                        |  |  |                            | Cubmintion and Approval                      |  |
| 100%    | 110         |       |                        |  |  | AIP Process Mechanical     | Submission and Approval                      |  |
| 100%    | 106         |       |                        |  |  |                            | M&E DDA Process Mechanical Supmission a      | ınd Approval   |
| 100%    | 581         |       |                        |  |  | M&EAIP                     | Instrumentation & Control Submission and Ap  | proval   |
| 9.35%   | -348        | 74    |                        |  |  |                            |  |  |
| 9.33 /6 | -340        | 74    |                        |  |  |                            |  | M&E DDA Instrumentation & Control Submission and Appro   |
| 100%    | 244         |       |                        |  |  | M&E DDA Ele                | ectrical and Renewable Energy Submission a   | nd Approval  |
| 100%    | -80         |       |                        | M&EAIP   | 'Building Services                                   | Submission and Approva     |  |  |
| 100%    | -96         |       |                        | M&E Design Basis &   | Civil Guidance Dw                                    | a                          |  |  |
| 10070   |             |       |                        | NICE Design Dasis &  |  | 9                          |  |  |
| 100%    | -183        |       |                        |  |  | M&E DDA Building Se        | ervices Submission and Approval              |  |
| 100%    | 111         |       |                        | M&EAI  | IP Site Electrical Su                                | Ibmission and Approval     |  |  |
| 100%    | -119        |       |                        |  | Ms   | &E DDA Lift Submission a   | nd Annroval                                  |  |
|         |             |       |                        |  |  |                            |  |  |
| 100%    | -66         |       |                        |  |  | M&E DDA Site Electrical    | Submission and Approval                      |  |
| 50%     | -169        | -27   |                        |  |  |                            |  | M&E DDA T&C Design Submission and Approval,  |
|         |             |       |                        |  |  |                            |  |  |
| 5.63%   | -63         | 89    |                        |  |  |                            | M&   | E Procurement of Major Plant, Equipment, Material and Deliv  |
| 100%    | -129        |       |                        |  |  |                            | M&E Procurement of Mec                       | hanical Equipment - Intake Pumps   |
|         |             |       |                        |  |  |                            |  |  |
| 100%    | -168        |       |                        |  |  |                            | M&E Procurement of Mechanical                | Equipment - ActiDAFF Underdrain  |
| 3.07%   | -282        | 29    |                        |  |  |                            | M&EI   | Procurement of Mechanical Equipment - ActiDAFF Media, M  |
| 100%    | -36         |       |                        |  |  |                            | M&E Procurement of Mechanical Equipmen       | tt- BO and EBD Back  |
|         |             |       |                        |  |  |                            |  |  |
| 85%     | -252        | 128   |                        |  |  |                            |  | M&E Procurement of Mechanical Equipment - RO Member<br>M&E Procurement - RO Mercement - RO Mercement - RO Member<br>M&E Procurement - RO Mercement - RO |
| 100%    | -52         |       |                        | · · · · · · · · · · · · · · · · · · ·  | M&E Procur   | rement of Electrical Equip | ment - CLP Substation for EV Switchboard / C | àenset / Building Services   |
|         |             |       |                        |  |  |                            |  |  |
| 100%    | -24         |       | Ex                     | cavation and Formation Works   | s for 132kV Substa                                   | tion                       |  |  |
| 100%    | -42         |       |                        |  | Construction of 132                                  | kV Substation              |  |  |
|         |             |       |                        |  |  |                            |  |  |
| 100%    | -67         |       |                        |  | Architectu   | ural Finishes for 132kV Si | ubstation                                    |  |
| 100%    | -30         |       |                        |  | M&E Inst   | tallation of 132kV Substat | ion  |  |
|         |             |       |                        |  |  |                            |  |  |
|         |             |       |                        |  | <u> </u>   |                            |  |  |
| 100%    | -204        | I     |                        | the state of the s | 1 1 1 1 1  | Construction of Comb       | bine Shaft                                   |  |



| WSD/17                               | Activity Name   | Baseline<br>Duration | Baseline Start         | Baseline Finish | Remaining<br>Duration | Actual / Planned<br>Start | Actual / Planned<br>Finish |        | uild and C<br>Variance<br>Finish Date | Total<br>Float |    |
|--------------------------------------|---|----------------------|------------------------|-----------------|-----------------------|---------------------------|----------------------------|--------|---------------------------------------|----------------|----|
| ES0002120                            | M&E Installation at Combine Shaft   | 160                  | 03-Jan-22              | 11-Jun-22       | 139                   | 03-Oct-22                 | 18-Feb-23                  | 0%     | -252                                  | -30            | Ľ  |
| ntake                                |   |                      |                        |                 |                       |                           |                            |        |                                       |                |    |
| ES0001070                            | DN2500 Pipe Jacking for Intake Pipeline                                       | 163                  | 09-Dec-20              | 20-May-21       | 0                     | 02-Jul-21 A               | 28-Mar-22 A                | 100%   | -312                                  |                |    |
| ES0001080                            | Receiving Pit and Marine Intake Structure                                     | 416                  | 11-Nov-20              | 31-Dec-21       | 120                   | 22-Mar-21 A               | 28-Jan-23                  | 75%    | -393                                  | 0              |    |
| ES0001110                            | Construction of Intake Land Structure   | 193                  | 21-May-21              | 29-Nov-21       | 8                     | 17-Feb-22 A               | 08-Oct-22                  | 98%    | -313                                  | -3             |    |
| ES0001120                            | Architectural Finishes for Intake Land Structure                              | 32                   | 30-Nov-21              | 31-Dec-21       | 10                    | 06-Oct-22                 | 15-Oct-22                  | 0%     | -288                                  | -18            |    |
| DutFall<br>ES0001090                 | DN1650 Pipe Jacking for Outfall Pipeline                                      | 140                  | 29-Dec-20              | 17-May-21       | 0                     | 01-Sep-21 A               | 24-Mar-22 A                | 100%   | -311                                  |                |    |
| ES0001100                            | Receiving Pit, Outfall and Diffuser Pipeline                                  | 343                  | 18-Dec-20              | 25-Nov-21       | 122                   | 08-Apr-21 A               | 30-Jan-23                  | 82%    | -431                                  | -2             | -  |
|                                      |   |                      |                        |                 |                       |                           |                            |        |                                       |                |    |
| ES0001140                            | Excavation for ActiDAFF   | 97                   | 02-May-20              | 06-Aug-20       | 0                     | 22-Apr-20 A               | 15-Aug-20 A                | 100%   | -9                                    |                |    |
| ES0001150                            | Construction of ActiDAFF Structure  | 393                  | 11-Sep-20              | 08-Oct-21       | 0                     | 10-Aug-20 A               | 03-Aug-22 A                | 100%   | -299                                  |                |    |
| ES0001160                            | Architectural Finishes for ActiDAFF   | 183                  | 07-Jul-21              | 05-Jan-22       | 10                    | 25-Apr-22 A               | 10-Oct-22                  | 94%    | -278                                  | -14            |    |
| ES0002130                            | M&E Installation at ActiDAFF  | 257                  | 28-Sep-21              | 11-Jun-22       | 155                   | 22-Jan-22 A               | 04-Mar-23                  | 11.75% | -266                                  | -7             |    |
| ES0002140                            | M&E Installation of Filter Water Tank and Pumping Station                     | 137                  | 29-Nov-21              | 14-Apr-22       | 126                   | 01-Jul-22 A               | 03-Feb-23                  | 24.64% | -295                                  | 0              |    |
|                                      | nosis Building  | 270                  | 04 Jun 00              | 20-Mar-21       | 0                     | 19. km 20.4               | 10 Oct 20 A                | 100%   | 161                                   |                | ĺ  |
| ES0001170<br>ES0001180               | Excavation at RO Building   | 321                  | 24-Jun-20<br>16-Nov-20 | 02-Oct-21       | 0                     | 18-Jun-20 A               | 10-Oct-20 A<br>11-Dec-21 A | 100%   | -70                                   |                |    |
|                                      | Construction of RO Building   |                      |                        |                 | 0                     | 25-Aug-20 A               |                            |        |                                       | 10             | _  |
| ES0001190                            | Architectural Finishes for RO Building  | 106                  | 09-Aug-21              | 22-Nov-21       | 8                     | 20-Sep-21 A               | 08-Oct-22                  | 98%    | -320                                  | 16             |    |
| ES0002150                            | M&E Installation of RO Building   | 315                  | 23-Nov-21              | 03-Oct-22       | 163                   | 24-Nov-21 A               | 12-Mar-23                  | 37.1%  | -160                                  | 31             | _  |
| Froduct Wat<br>ES0001240             | ter Storage Tank<br>Excavation and Soil Nail System for Product Water Storage | 106                  | 10-Aug-20              | 23-Nov-20       | 0                     | 24-Jun-20 A               | 01-Dec-20 A                | 100%   | -8                                    |                |    |
| ES0001250                            | Tank<br>Construction of Product Water Storage Tank                            | 276                  | 24-Nov-20              | 26-Aug-21       | 0                     | 21-Oct-20 A               | 18-Dec-21 A                | 100%   | -114                                  |                | +- |
| ES0001260                            | Architectural Finishes for Product Water Storage Tank                         | 70                   | 27-Aug-21              | 04-Nov-21       | 0                     | 16-May-22 A               | 07-Jun-22 A                | 100%   | -215                                  |                | -  |
| ES0002210                            | M&E Installation of Product Water Tank  | 78                   | 12-Jan-22              | 30-Mar-22       | 140                   | 31-Jul-21 A               | 17-Feb-23                  | 30%    | -324                                  | 3              | -  |
| roduct Wat                           | ter Pumping Station   |                      |                        |                 |                       |                           |                            |        |                                       |                | Ī  |
| ES0001270                            | Excavation for Product Water Pump Station                                     | 47                   | 22-Oct-20              | 07-Dec-20       | 0                     | 08-Mar-21 A               | 07-Apr-21 A                | 100%   | -121                                  |                |    |
| ES0001280                            | Construction of Product Water Pump Station                                    | 270                  | 22-Jan-21              | 18-Oct-21       | 0                     | 17-Apr-21 A               | 18-Dec-21 A                | 100%   | -61                                   |                | -  |
| ES0001290                            | Architectural Finishes for Product Water Pumping Station                      | 106                  | 25-Sep-21              | 08-Jan-22       | 0                     | 08-Feb-22 A               | 16-Jul-22 A                | 100%   | -189                                  |                |    |
| ES0002215                            | M&E Installation of Product Water Pump Station                                | 78                   | 12-Jan-22              | 30-Mar-22       | 163                   | 20-Jun-22 A               | 12-Mar-23                  | 15.37% | -347                                  | -24            |    |
| <mark>hemical Bu</mark><br>ES0001300 | <b>uilding</b><br>Excavation for Chemical Building                            | 42                   | 10 Aug 20              | 22-Sep-20       | 0                     | 17-Jun-21 A               | 17-Jul-21 A                | 100%   | -298                                  |                |    |
| ES0001300                            | Construction of Chemical Building   | 255                  | 12-Aug-20              | 04-Jun-21       | 0                     | 17-Jul-21 A               | 09-Jun-22 A                | 100%   | -296                                  |                |    |
| ES0001310                            | Architectural Finishes for Chemical Building                                  | 73                   | 23-Sep-20<br>05-Jun-21 | 16-Aug-21       | 50                    | 09-Jun-22 A               | 19-Nov-22                  | 70%    | -370                                  | -29            | _  |
|                                      |   |                      |                        |                 |                       |                           |                            |        |                                       |                |    |
| ES0002220                            | M&E Installation of Chemical Building   | 264                  | 02-Sep-21              | 23-May-22       | 155                   | 15-Aug-22 A               | 04-Mar-23                  | 36%    | -285                                  | -29            |    |
| ES0001330                            | on Building<br>Piling Works for Administration Building                       | 110                  | 19-Oct-20              | 05-Feb-21       | 0                     | 03-Oct-20 A               | 16-Jan-21 A                | 100%   | 20                                    |                |    |
| ES0001340                            | Excavation for Administration Building  | 31                   | 06-Feb-21              | 08-Mar-21       | 0                     | 28-Dec-20 A               | 15-Mar-21 A                | 100%   | -7                                    |                |    |
| ES0001350                            | Construction of Administration Building                                       | 339                  | 09-Mar-21              | 10-Feb-22       | 0                     | 28-Jan-21 A               | 29-Aug-22 A                | 100%   | -200                                  |                |    |
| ES0001360                            | Architectural Finishes for Administration Building                            | 204                  | 26-Aug-21              | 17-Mar-22       | 143                   | 19-Apr-22 A               | 20-Feb-23                  | 54%    | -340                                  | -30            |    |
| ES0002230                            | M&E Installation of Admin Building  | 184                  | 16-Nov-21              | 18-May-22       | 141                   | 15-Jul-22 A               | 18-Feb-23                  | 4.5%   | -276                                  | -30            |    |
| <b>_</b>                             | rvices & Lift Installation  | =                    | 40                     |                 |                       |                           |                            |        | • · · =                               |                |    |
| ES0002270                            | M&E Lift Installation   | 147                  | 18-Mar-22              | 11-Aug-22       | 152                   | 21-Feb-23                 | 22-Jul-23                  | 0%     | -345                                  | 21             |    |

Target Bar

Critical Bar

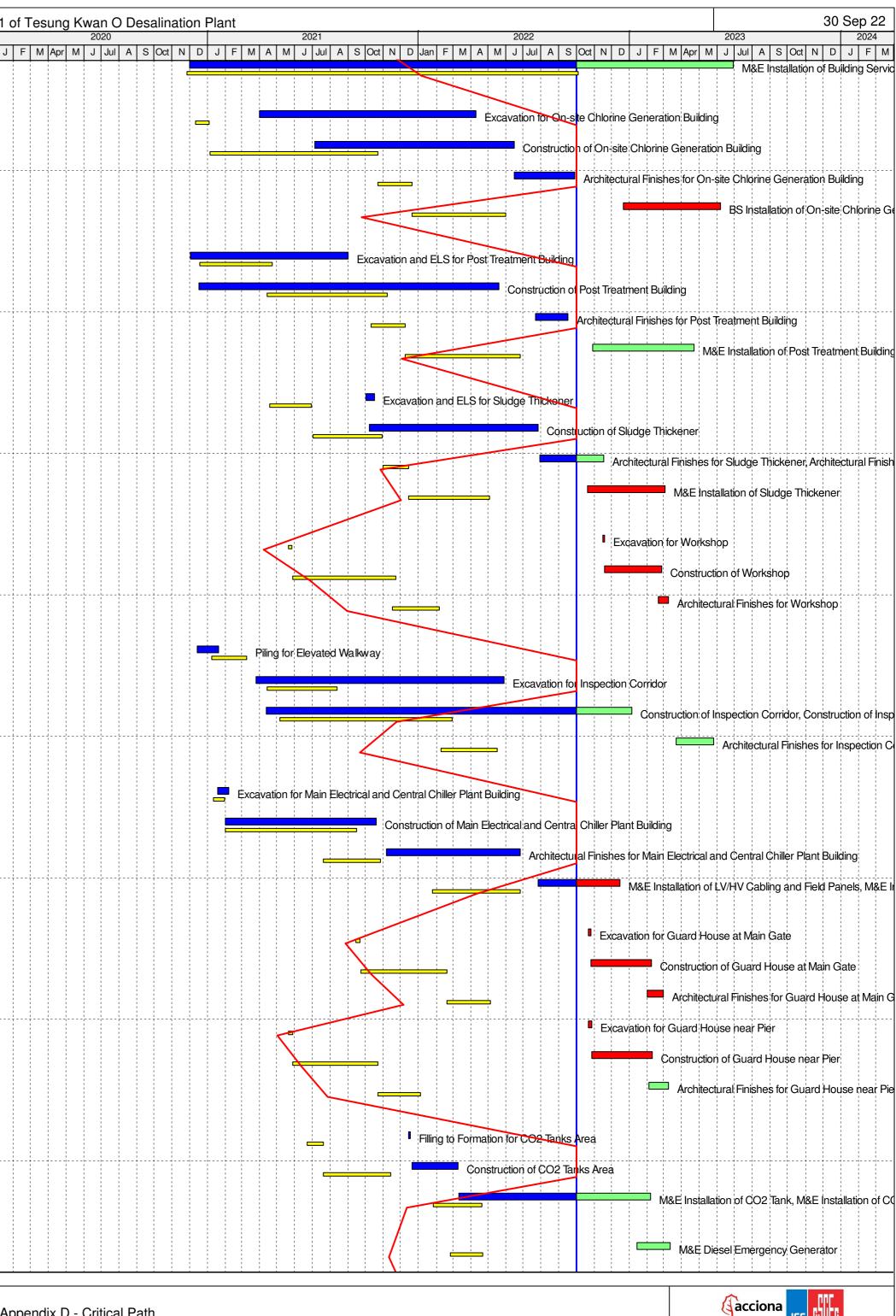


AJC JOINT VENTURE

| D                                  | Activity Name  | Baseline<br>Duration | Baseline Start          | Baseline Finish | Remaining<br>Duration | Actual / Planned<br>Start | Actual / Planned<br>Finish | Actual %<br>Complete | Variance<br>Finish Date | Total<br>Float |
|------------------------------------|--|----------------------|-------------------------|-----------------|-----------------------|---------------------------|----------------------------|----------------------|-------------------------|----------------|
| S0002280                           | M&E Installation of Building Services  | 676                  | 27-Nov-20               | 03-Oct-22       | 271                   | 01-Dec-20 A               | 28-Jun-23                  | 22.95%               | -268                    | 45             |
| SCG Build                          | ling   |                      |                         |                 |                       |                           |                            |                      |                         |                |
| S0001400                           | Excavation for On-site Chlorine Generation Building                              | 25                   | 11-Dec-20               | 04-Jan-21       | 0                     | 01-Apr-21 A               | 09-Apr-22 A                | 100%                 | -460                    |                |
| S0001410                           | Construction of On-site Chlorine Generation Building                             | 291                  | 05-Jan-21               | 22-Oct-21       | 0                     | 05-Jul-21 A               | 15-Jun-22 A                | 100%                 | -236                    |                |
| S0001420                           | Architectural Finishes for On-site Chlorine Generation Building                  | 59                   | 23-Oct-21               | 20-Dec-21       | 0                     | 16-Jun-22 A               | 28-Sep-22 A                | 100%                 | -282                    |                |
| S0002200                           | BS Installation of On-site Chlorine Generation Building (DG inspection)          | 162                  | 21-Dec-21               | 31-May-22       | 168                   | 21-Dec-22                 | 06-Jun-23                  | 0%                   | -371                    | 0              |
| ost Treatm                         | ent Building   |                      |                         |                 |                       |                           |                            |                      |                         |                |
| S0001210                           | Excavation and ELS for Post Treatment Building                                   | 126                  | 19-Dec-20               | 23-Apr-21       | 0                     | 03-Dec-20 A               | 01-Sep-21 A                | 100%                 | -131                    |                |
| S0001220                           | Construction of Post Treatment Building  | 209                  | 14-Apr-21               | 08-Nov-21       | 0                     | 17-Dec-20 A               | 19-May-22 A                | 100%                 | -192                    |                |
| S0001230                           | Architectural Finishes for Post Treatment Building                               | 59                   | 11-Oct-21               | 08-Dec-21       | 0                     | 22-Jul-22 A               | 16-Sep-22 A                | 100%                 | -282                    |                |
| S0002180                           | M&E Installation of Post Treatment Building                                      | 199                  | 09-Dec-21               | 25-Jun-22       | 176                   | 29-Oct-22                 | 22-Apr-23                  | 0%                   | -301                    | 51             |
| udge Thic                          | :kener   |                      |                         |                 |                       |                           |                            |                      |                         |                |
| S0001680                           | Excavation and ELS for Sludge Thickener  | 73                   | 19-Apr-21               | 30-Jun-21       | 0                     | 02-Oct-21 A               | 16-Oct-21 A                | 100%                 | -108                    |                |
| S0001690                           | Construction of Sludge Thickener   | 121                  | 02-Jul-21               | 30-Oct-21       | 0                     | 08-Oct-21 A               | 26-Jul-22 A                | 100%                 | -269                    |                |
| S0001700                           | Architectural Finishes for Sludge Thickener                                      | 44                   | 01-Nov-21               | 14-Dec-21       | 48                    | 29-Jul-22 A               | 17-Nov-22                  | 0%                   | -338                    | 22             |
| S0002190                           | M&E Installation of Sludge Thickener   | 141                  | 15-Dec-21               | 04-May-22       | 135                   | 20-Oct-22                 | 03-Mar-23                  | 0%                   | -303                    | -15            |
| orkshop<br>S0001560                | Excavation for Workshop  | 7                    | 21-May-21               | 27-May-21       | 4                     | 15-Nov-22                 | 18-Nov-22                  | 0%                   | -540                    | -17            |
| S0001570                           | Construction of Workshop   | 179                  | 28-May-21               | 22-Nov-21       | 99                    | 19-Nov-22                 | 25-Feb-23                  | 0%                   | -460                    | -17            |
|                                    |  |                      |                         | 05-Feb-22       |                       |                           |                            |                      |                         | -18            |
| S0001580                           | Architectural Finishes for Workshop  | 81                   | 17-Nov-21               | 05-Feb-22       | 17                    | 20-Feb-23                 | 08-Mar-23                  | 0%                   | -396                    | -18            |
| spection (<br>S0001590             | Piling for Elevated Walkway  | 60                   | 09-Jan-21               | 09-Mar-21       | 0                     | 15-Dec-20 A               | 19-Jan-21 A                | 100%                 | 49                      |                |
| S0001600                           | Excavation for Inspection Corridor   | 121                  | 14-Apr-21               | 12-Aug-21       | 0                     | 26-Mar-21 A               | 28-May-22 A                | 100%                 | -289                    |                |
| S0001610                           | Construction of Inspection Corridor  | 299                  | 06-May-21               | 28-Feb-22       | 96                    | 12-Apr-21 A               | 04-Jan-23                  | 50%                  | -310                    | 8              |
| S0001620                           | Architectural Finishes for Inspection Corridor                                   | 99                   | 08-Feb-22               | 17-May-22       | 65                    | 23-Mar-23                 | 26-May-23                  | 0%                   | -374                    | 93             |
| ain Electri                        | cal and Central Chiller Plant Building   |                      |                         |                 |                       |                           |                            |                      |                         |                |
| S0001430                           | Excavation for Main Electrical and Central Chiller Plant<br>Building             | 20                   | 11-Jan-21               | 30-Jan-21       | 0                     | 18-Jan-21 A               | 06-Feb-21 A                | 100%                 | -7                      |                |
| S0001440                           | Construction of Main Electrical and Central Chiller Plant<br>Building            | 227                  | 01-Feb-21               | 15-Sep-21       | 0                     | 01-Feb-21 A               | 20-Oct-21 A                | 100%                 | -35                     |                |
| S0001450                           | Architectural Finishes for Main Electrical and Central Chiller<br>Plant Building | 99                   | 20-Jul-21               | 26-Oct-21       | 0                     | 06-Nov-21 A               | 25-Jun-22 A                | 100%                 | -242                    |                |
| S0002260                           | M&E Installation of LV/HV Cabling and Field Panels                               | 152                  | 25-Jan-22               | 25-Jun-22       | 76                    | 27-Jul-22 A               | 15-Dec-22                  | 35.38%               | -173                    | -1             |
| <mark>uard Hous</mark><br>S0001490 |  | 7                    | 15 Con 01               | 01 Sep 01       | 5                     | 21 Oct 22                 | 25 Oct 22                  | 09/                  | 200                     | 10             |
|                                    | Excavation for Guard House at Main Gate  | 7                    | 15-Sep-21               | 21-Sep-21       | 5                     | 21-Oct-22                 | 25-Oct-22                  | 0%                   | -399                    | -13            |
| S0001500                           | Construction of Guard House at Main Gate   | 149                  | 23-Sep-21               | 18-Feb-22       | 105                   | 26-Oct-22                 | 07-Feb-23                  | 0%                   | -354                    | -19            |
| S0001510                           | Architectural Finishes for Guard House at Main Gate                              | 76                   | 19-Feb-22               | 05-May-22       | 28                    | 01-Feb-23                 | 28-Feb-23                  | 0%                   | -299                    | -6             |
| S0001520                           | Excavation for Guard House near Pier   | 8                    | 21-May-21               | 28-May-21       | 6                     | 22-Oct-22                 | 27-Oct-22                  | 0%                   | -517                    | -15            |
| S0001530                           | Construction of Guard House near Pier  | 147                  | 29-May-21               | 22-Oct-21       | 105                   | 28-Oct-22                 | 09-Feb-23                  | 0%                   | -475                    | -21            |
| S0001540                           | Architectural Finishes for Guard House near Pier                                 | 74                   | 23-Oct-21               | 04-Jan-22       | 35                    | 03-Feb-23                 | 09-Mar-23                  | 0%                   | -429                    | 104            |
| <b>D2 Tank</b><br>S0001370         | Filling to Formation for CO2 Tanks Area  | 29                   | 22-Jun-21               | 20-Jul-21       | 0                     | 14-Dec-21 A               | 17-Dec-21 A                | 100%                 | -150                    |                |
| S0001370                           | Construction of CO2 Tanks Area   | 116                  | 22-Juli-21<br>21-Jul-21 | 13-Nov-21       | 0                     | 14-Dec-21 A               | 17-Dec-21A                 | 100%                 | -150                    |                |
| S0001380                           | M&E Installation of CO2 Tank   | 84                   | 27-Jan-22               | 20-Apr-22       | 129                   | 11-Mar-22 A               | 06-Feb-23                  | 15.85%               | -117                    | 108            |
|                                    |  | 04                   | 21-Jai1-22              | 20-ημι-22       | 123                   | 11 1VIAI-22 A             | 00-1 00-20                 | 10.00%               | -LJL                    | 100            |
| <mark>esel Emer</mark><br>S0002250 | rgency Generator<br>M&E Diesel Emergency Generator                               | 57                   | 25-Feb-22               | 22-Apr-22       | 57                    | 14-Jan-23                 | 11-Mar-23                  | 0%                   | -323                    | 153            |
|                                    |  |                      |                         |                 |                       |                           |                            |                      |                         |                |

Target Bar

Critical Bar



| 3/WSD/17     |  |                      |                |                 |                         |             |                              |          | uild and O              | perate S       | tage 1 of Tes | sung Kwar | o Desal   | ination Pl | ant  |             |           |           |             |                                       |           |                       | 30                 | 30 Se |
|--------------|--|----------------------|----------------|-----------------|-------------------------|-------------|------------------------------|----------|-------------------------|----------------|---------------|-----------|-----------|------------|------|-------------|-----------|-----------|-------------|---------------------------------------|-----------|-----------------------|--------------------|-------|
| ivity ID     | Activity Name  | Baseline<br>Duration | Baseline Start | Baseline Finish | n Remaining<br>Duration |             | d Actual / Planned<br>Finish | Actual % | Variance<br>Finish Date | Total<br>Float |               | 202       |           |            |      | 2021        |           |           | 2022        |                                       |           | 2023                  |                    |       |
|              |  | Duration             |                |                 | Duration                | Jun         |                              | Compiete | rinon Dale              |                | N D J F M     | Apr M J   | Jul A S C | oct N D    | JFMA | M J Jul A   | S Oct N [ | D Jan F M | A M J Jul A | S Oct                                 | N D J F M | Apr M J Jul           | A S Oct N E        | D     |
|              | n and Transformer Installation                       |                      |                |                 |                         |             |                              |          |                         |                |               |           |           |            |      | ⊧ <b>⊧!</b> |           |           |             |                                       |           |                       |                    |       |
| ES0002300    | M&E Installation of HV/LV Switchroom and Transformer | 242                  | 16-Nov-21      | 15-Jul-22       | 208                     | 24-Jul-22 A | 26-Apr-23                    | 50%      | -285                    | -9             |               |           |           |            |      |             |           |           |             |                                       |           | M&E Install           | lation of HV/LV Sv | witc  |
| Miscellaneou | us   |                      |                |                 |                         | 1           |                              |          |                         |                |               |           |           |            |      |             |           |           |             |                                       |           |                       |                    |       |
| ES0001630    | Remaining Architectural Finishes for All Buildings   | 322                  | 11-Jan-22      | 28-Nov-22       | 268                     | 21-Nov-22   | 15-Aug-23                    | 0%       | -260                    | 17             |               |           |           |            |      |             |           |           |             |                                       |           |                       | Remaining Arc      | rch   |
| ES0001640    | External Process and Non-Process Pipe                | 655                  | 18-Dec-20      | 03-Oct-22       | 210                     | 27-May-21 A | 28-Apr-23                    | 45%      | -207                    | -30            |               |           |           |            |      |             |           |           |             |                                       |           | External Pr           | ocess and Non-F    | Pr    |
| ES0001650    | Drainage and Cable Duct                              | 518                  | 04-Jun-21      | 03-Nov-22       | 182                     | 25-Apr-22 A | 31-Mar-23                    | 30%      | -148                    | -30            |               |           |           |            |      |             |           |           |             |                                       |           | Drainage and          | Cable Duct, Drair  | lina  |
| ES0001660    | Slope Mitigation and Maintenance Access              | 684                  | 23-Nov-20      | 07-Oct-22       | 376                     | 28-Sep-21 A | 11-Oct-23                    | 5%       | -369                    | 49             |               |           |           |            |      |             |           |           |             | ·····                                 |           |                       | Slope I            | M     |
| ES0001670    | Landscaping Works                                    | 469                  | 28-Oct-21      | 08-Feb-23       | 275                     | 06-Jan-23   | 07-Oct-23                    | 0%       | -241                    | 7              |               |           |           |            |      |             |           |           |             |                                       |           |                       | Landsc             | ;C2   |
| ES0002290    | M&E PV Panels  | 215                  | 23-Nov-21      | 25-Jun-22       | 150                     | 10-Oct-22   | 08-Mar-23                    | 0%       | -256                    | 148            |               |           |           |            |      |             |           |           |             |                                       |           | M&E PV Panels         |                    |       |
| ES0002310    | M&E Chiller & Irrigation System Installation         | 298                  | 27-Oct-21      | 20-Aug-22       | 99                      | 12-Apr-22 A | 07-Jan-23                    | 17.96%   | -140                    | 12             |               |           |           |            |      |             |           |           |             |                                       | M&E CI    | niller & Irrigation S | ystem Installation | n,    |
| ES0002350    | M&E Installation of Surge Vessel                     | 70                   | 24-Feb-22      | 04-May-22       | 69                      | 09-Jan-23   | 18-Mar-23                    | 0%       | -318                    | 123            |               |           |           |            |      |             |           |           |             |                                       |           | M&E Installation      | of Surge Vessel    | I     |
| ES0002390    | M&E Installation of Thickened Sludge Holding Tank    | 42                   | 09-Dec-21      | 19-Jan-22       | 60                      | 12-Nov-22   | 10-Jan-23                    | 0%       | -356                    | 24             |               |           |           |            |      |             |           |           |             |                                       | M&E In    | stallation of Thick   | ened Sludge Hold   | ld    |
| Statutory Su | bmission & Inspection                                |                      |                |                 |                         |             |                              |          |                         |                |               |           |           |            |      |             |           |           |             |                                       |           |                       |                    |       |
| ES0002330    | Statutory Submission & Inspection                    | 1148                 | 11-Jan-20      | 03-Mar-23       | 394                     | 03-Dec-19 A | 29-Oct-23                    | 64.42%   | -240                    | 31             |               |           |           |            |      |             |           |           |             |                                       |           |                       | Statu              | tu    |
| Testing and  | Commissioning  |                      | I              |                 |                         |             |                              |          |                         | 1              |               |           |           |            |      |             |           |           |             |                                       |           |                       |                    |       |
| ES0002400    | M&E Precomissioning                                  | 229                  | 12-Jun-22      | 26-Jan-23       | 203                     | 19-Feb-23   | 09-Sep-23                    | 0%       | -226                    | -30            |               |           |           |            |      |             |           |           |             |                                       |           |                       | M&E Preco          | ;OI   |
| ES0002410    | M&E Commissioning                                    | 213                  | 04-Jul-22      | 01-Feb-23       | 194                     | 01-Mar-23   | 10-Sep-23                    | 0%       | -221                    | -30            |               |           |           |            |      |             |           |           |             | · · · · · · · · · · · · · · · · · · · |           |                       | M&E Comr           | ۱m    |
| ES0002420    | M&E Performance Test                                 | 40                   | 02-Feb-23      | 13-Mar-23       | 110                     | 11-Sep-23   | 29-Dec-23                    | 0%       | -291                    | -30            |               |           |           |            |      |             |           |           |             |                                       |           |                       |                    |       |

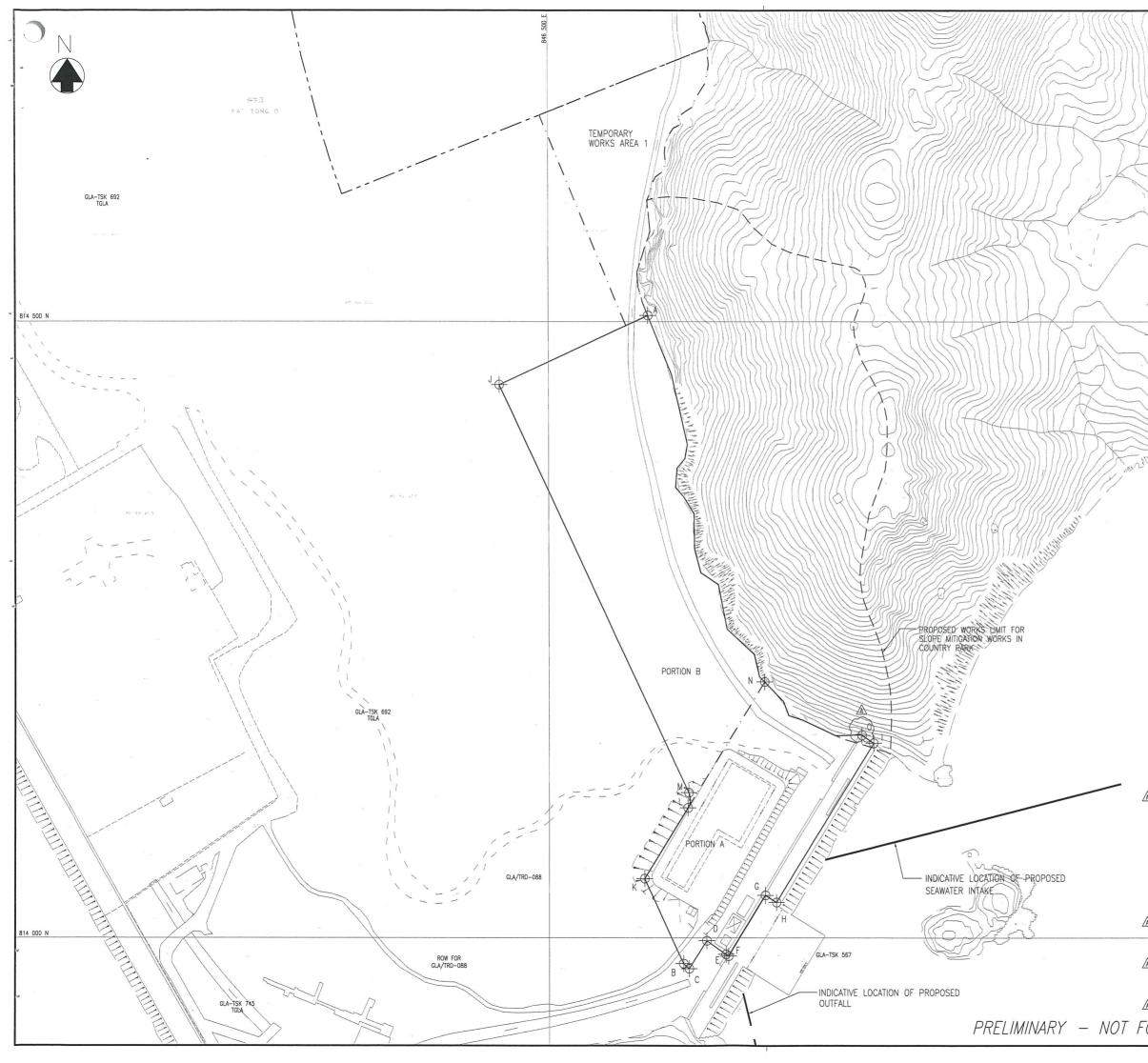






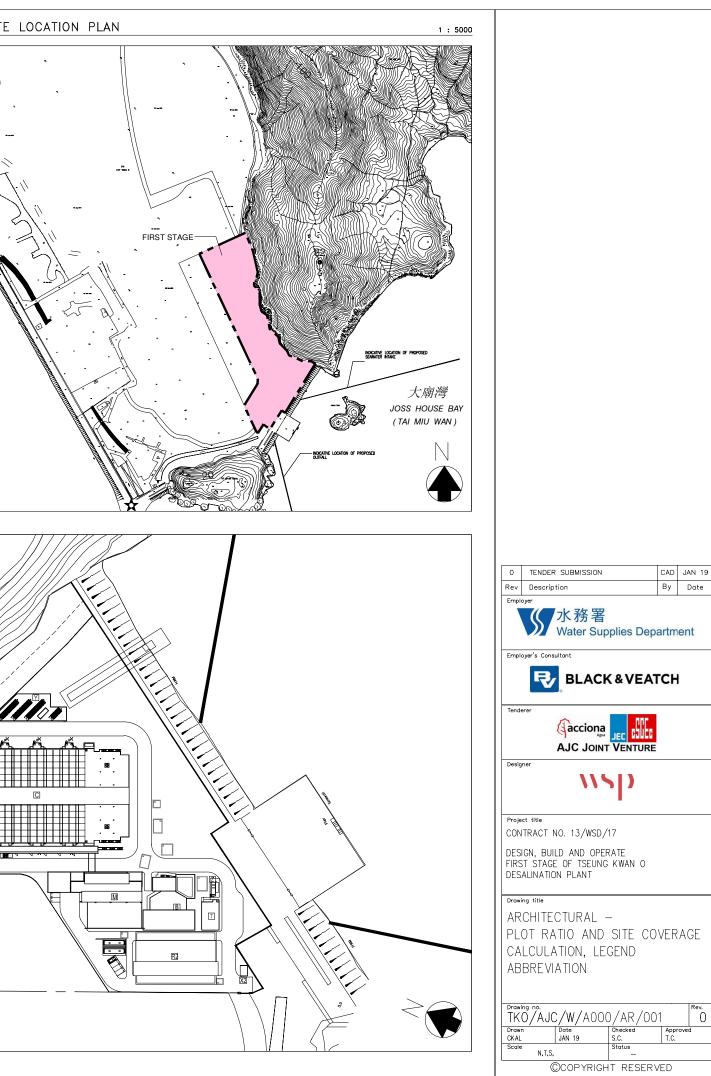
Appendix B

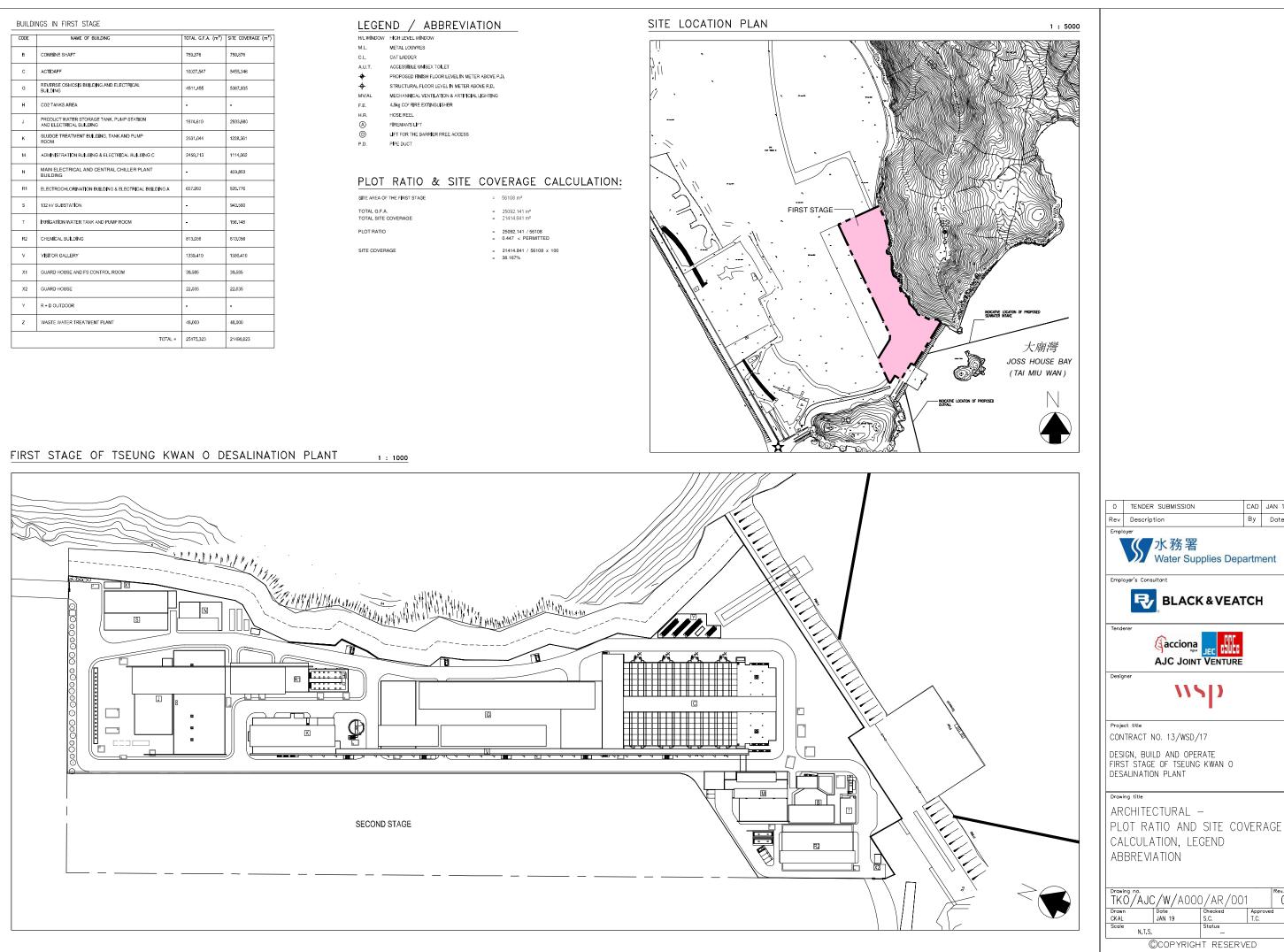
# Overview of Desalination Plant in Tseung Kwan O



|                           | 1                                     | 1.7                                       | 11/17-   | ///   | C Copyright by Black & Vertch Hong Kong Limited  |
|---------------------------|---------------------------------------|---|--|---|--|
| 847-000                   | 1                                     | 14  | 1)))   | , /   | LEGEND:  |
|                           | 1                                     | 11  | SS1 /  |   | BOUNDARY OF SENT   |
|                           | (                                     | ))))/                                     | []//   |   | LANDFILL EXTENSION<br>BOUNDARY OF WORKS AREA FOR   |
|                           | 1                                     |   | 1º   |   | TKO DESALINATION PLANT   |
| ))                        |                                       |   | HHL.   |   | GLA-TSK 692 ALLOCATED LAND BOUNDARIES  |
| $\langle \langle \rangle$ | 4                                     | tt  | H.   | >   | NOTE: TEMPORARY WORKS AREA 1 WILL BE   |
| +                         | _                                     | K   |  |   | HANDED OVER AT +6 MPD WITH A<br>TOLERANCE OF ±500mm.   |
| 1                         |                                       | 2   | >)))////   | <u> </u>  |  |
| 1                         | /                                     |   |  | 1177  |  |
|                           | -                                     | //  | ////   | 1111  |  |
| 1                         |                                       | //  | 15   |   |  |
| 7                         | 1                                     | /   | 716  |   |  |
| 17                        | $\langle \rangle$                     |   | -ll'   | AHB   |  |
|                           |                                       |   |  | JUN   |  |
| 1                         | 1                                     | 1/  |  |   |  |
| 1                         | 1                                     |   | (.   | ME  |  |
| 1                         | /                                     | 11  |  |   |  |
| Y                         | 1                                     | 5   | $\square$  | STIM  |  |
| 1                         |                                       | )   |  | ////////  |  |
| 1                         | 110                                   | This .                                    |  |   |  |
| 11111                     | Ŵ                                     |   | 1 Milegins   | Mua   |  |
|                           |                                       |   |  |   |  |
|                           |                                       |   |  |   |  |
|                           |                                       |   |  |   | B 10/03 UPDATE NOTES YLC   |
|                           |                                       |   |  |   | A         07/18         UPDATE         COORDINATES         YLC           Revision         Date         Description         Initial   |
|                           |                                       |   |  |   | Designed Checked Drawn Checked   |
|                           |                                       |   |  |   | Initial         YLC         CKH         SZ         WLS           Date         02/18         02/18         02/18         02/18  |
|                           |                                       |   |  |   | Approved   |
|                           |                                       |   |  |   | ansmallo   |
|                           |                                       |   |  |   | Agreement No.<br>CE 8/2015 (WS)  |
|                           | ſ                                     | POINT                                     | EASTING  | NORTHING  | Contract No.   |
|                           |                                       | А   | 846581.93  | 814505.03   | 13/WSD/17  |
|                           |                                       | В   | 846610.11  | 813979.23   | Contract Title<br>DESIGN. BUILD AND OPERATE  |
|                           | 1                                     |   | 010010.11  |   |  |
|                           |                                       | С   | 846614.73  | 813975.12   | DESIGN, BUILD AND OPERATE<br>FIRST STAGE OF TSEUNG KWAN O<br>DESALINATION PLANT  |
|                           |                                       | C<br>D                                    |  | 813975.12<br>813997.84  | FIRST STÁGE OF TSEUNG KWAN O<br>DESALINATION PLANT   |
|                           |                                       |   | 846614.73  |   | DESALINATION PLANT   |
|                           |                                       | D   | 846614.73<br>846629.09   | 813997.84   | DESALINATION PLANT   |
| A (                       |                                       | D<br>E                                    | 846614.73<br>846629.09<br>846644.75  | 813997.84<br>813986.74  | DESALINATION PLANT   |
|                           | · · · · · · · · · · · · · · · · · · · | D<br>E<br>F                               | 846614.73<br>846629.09<br>846644.75<br>846646.80   | 813997.84<br>813986.74<br>813985.28   | DESALINATION PLANT   |
|                           | · · · · · · · · · · · · · · · · · · · | D<br>E<br>F<br>G                          | 846614.73<br>846629.09<br>846644.75<br>846646.80<br>846646.80<br>846677.24   | 813997.84<br>813986.74<br>813985.28<br>814034.67  | DESALINATION PLANT Drowing Title SITE HANDOVER WORKS AREAS Drowing No. Revision  |
|                           |                                       | D<br>E<br>F<br>G<br>H                     | 846614.73<br>846629.09<br>846644.75<br>846646.80<br>846677.24<br>846686.56   | 813997.84<br>813986.74<br>813985.28<br>814034.67<br>814028.89   | DESALINATION PLANT Drowing Title SITE HANDOVER WORKS AREAS Drowing No. 190495/K/TEND/10/0003 B   |
|                           |                                       | D<br>E<br>F<br>G<br>H                     | 846614.73<br>846629.09<br>846644.75<br>846646.80<br>846646.80<br>846677.24<br>846686.56<br>846766.21   | 813997.84<br>813986.74<br>813985.28<br>814034.67<br>814028.89<br>814158.11  | DESALINATION PLANT Drowing Title SITE HANDOVER WORKS AREAS Drowing No. Revision  |
|                           |                                       | D<br>E<br>F<br>G<br>H<br>J                | 846614.73<br>846629.09<br>846644.75<br>846646.80<br>846677.24<br>846686.56<br>846766.21<br>846459.65   | 813997.84<br>813986.74<br>813985.28<br>814034.67<br>814028.89<br>814158.11<br>814448.83<br>814048.11<br>814405.63                           | DESALINATION PLANT Drowing Title SITE HANDOVER WORKS AREAS Drowing No. 190495/K/TEND/10/0003 B Scele A1 1 : 1500 A3 1 : 3000 水務署   |
|                           |                                       | D<br>E<br>F<br>G<br>H<br>I<br>J           | 846614.73<br>846629.09<br>846644.75<br>846646.80<br>846677.24<br>846686.56<br>846766.21<br>846766.21<br>846459.65<br>846578.45               | 813997.84<br>813986.74<br>813985.28<br>814034.67<br>814028.89<br>814158.11<br>814448.83<br>814048.11  | DESALINATION PLANT<br>Drowing Title<br>SITE HANDOVER WORKS AREAS<br>Drowing No.<br>190495/K/TEND/10/0003<br>B<br>Scole A1 1 :: 1500<br>A3 1 :: 3000<br>水務署<br>Water Supplies |
|                           |                                       | D<br>E<br>F<br>G<br>H<br>I<br>J<br>K<br>L | 846614.73<br>846629.09<br>846644.75<br>846646.80<br>846677.24<br>846686.56<br>8466766.21<br>8466578.45<br>8466578.45<br>846613.89            | 813997.84<br>813986.74<br>813985.28<br>814034.67<br>814028.89<br>814158.11<br>814448.83<br>814048.11<br>814405.63                           | DESALINATION PLANT Drowing Title SITE HANDOVER WORKS AREAS Drowing No. 190495/K/TEND/10/0003 B Scele A1 1 : 1500 A3 1 : 3000 水務署   |
|                           |                                       | D<br>F<br>G<br>H<br>J<br>K<br>L<br>M      | 846614.73<br>846629.09<br>846644.75<br>846646.80<br>846677.24<br>846686.56<br>8466766.21<br>846659.65<br>846578.45<br>846613.89<br>846614.60 | 813997.84<br>813986.74<br>813985.28<br>814034.67<br>814028.89<br>814028.89<br>814158.11<br>814448.83<br>814048.11<br>814405.63<br>814117.96 | DESALINATION PLANT<br>Drowing Title<br>SITE HANDOVER WORKS AREAS<br>Drowing No.<br>190495/K/TEND/10/0003<br>B<br>Scole A1 1 :: 1500<br>A3 1 :: 3000<br>水務署<br>Water Supplies |

| CODE | NAME OF BUILDING  | TOTAL G.F.A. (m <sup>2</sup> ) | SITE COVERAGE (m <sup>2</sup> ) |
|------|---|--------------------------------|---------------------------------|
| в    | COMBINE SHAFT   | 759.876                        | 759.876                         |
| с    | ACTIDAFF  | 10027.547                      | 5455 <u>3</u> 46                |
| G    | REVERSE OSMOSIS BUILDING AND ELECTRICAL<br>BUILDING                 | 4511.455                       | 5367.935                        |
| н    | CO2 TANKS AREA  | -                              | -                               |
| J    | PRODUCT WATER STORAGE TANK, PUMP STATION<br>AND ELECTRICAL BUILDING | 1974.610                       | 2933.980                        |
| к    | SLUDGE TREATMENT BUILDING, TANK AND PUMP<br>ROOM                    | 2531.044                       | 1228.361                        |
| М    | ADMINISTRATION BUILDING & ELECTRICAL BUILDING C                     | 2459.713                       | 1114,062                        |
| N    | MAIN ELECTRICAL AND CENTRAL CHILLER PLANT<br>BUILDING               | -                              | 459,893                         |
| R1   | ELECTROCHLORINATION BUILDING & ELECTRICAL BUILDING A                | 657.992                        | 825.776                         |
| s    | 132 KV SUBSTATION   | -                              | 943.560                         |
| Т    | IRRIGATION WATER TANK AND PUMP ROOM                                 | -                              | 156.148                         |
| R2   | CHEMICAL BUILDING   | 813.056                        | 813.056                         |
| ν    | VISITOR GALLERY   | 1330.410                       | 1330.410                        |
| X1   | GUARD HOUSE AND FS CONTROL ROOM                                     | 39.585                         | 39.585                          |
| X2   | GUARD HOUSE   | 22.035                         | 22.035                          |
| Y    | R + D OUTDOOR   | -                              | -                               |
| z    | WASTE WATER TREATMENT PLANT   | 48.000                         | 48.000                          |
|      | TOTAL =   | 25175 <u>.</u> 323             | 21498.023                       |









## Appendix C

# Summary of Implementation Status of Environmental Mitigation





| EIA         | Recommended Environmental Protection Measures/  | Objectives of the recommended measures &                      | Implementation Agent  | -        | ement<br>Stage | tation | Implementation | Relevant Legislation &                       |
|-------------|---|---|-----------------------|----------|----------------|--------|----------------|--|
| Reference   | Mitigation Measures   | main concerns to address                                      | imprementation rigent | D        | С              | 0      | status         | Guidelines                                   |
| Air Quality |   |   |                       |          | 1              |        |                |  |
| S4.8.1      | Impervious dust screen or sheeting will be provided to enclose scaffolding from the ground floor level of building for construction of superstructure of the new buildings.   | Land site/During<br>Construction                              | Contractor(s)         |          | ~              |        | Implemented    | Air Pollution Control<br>(Construction Dust) |
| S4.8.1      | Impervious sheet will be provided for skip hoist for material transport.  | Land site/ During<br>Construction, particularly<br>dry season | Contractor(s)         |          | <b>√</b>       |        | NA             | -  |
| S4.8.1      | The area where dusty work takes place should be sprayed with<br>water or a dust suppression chemical immediately prior to, during<br>and immediately after dusty activities as far as practicable.  | Land site/ During<br>Construction                             | Contractor(s)         |          | •              |        | Implemented    | -  |
| S4.8.1      | All dusty materials should be sprayed with water or a dust<br>suppression chemical immediately prior to any loading, unloading<br>or transfer operation.  | Land site/ During<br>Construction                             | Contractor(s)         |          | ✓<br>✓         |        | Implemented    | -  |
| S4.8.1      | Dropping heights for excavated materials should be controlled to a practical height to minimize the fugitive dust arising from unloading.   | Land site/ During<br>Construction                             | Contractor(s)         |          | <b>√</b>       |        | Implemented    | -  |
| S4.8.1      | During transportation by truck, materials should not be loaded to<br>a level higher than the side and tail boards, and should be<br>dampened or covered before transport.   | Land site/ During<br>Construction                             | Contractor(s)         |          | <b>√</b>       |        | Implemented    | -  |
| S4.8.1      | Wheel washing device should be provided at the exits of the work<br>sites. Immediately before leaving a construction site, every vehicle<br>shall be washed to remove any dusty material from its body and<br>wheels as far as practicable. | Land site/ During<br>Construction                             | Contractor(s)         |          | •              |        | Implemented    | -  |
| S4.8.1      | Road sections between vehicle-wash areas and vehicular entrance will be paved.  | Land site/ During<br>Construction                             | Contractor(s)         |          | 1              |        | Implemented    | -  |
| S4.8.1      | Hoarding of not less than 2.4m high from ground level will be provided along the length of the Project Site boundary.   | Land site/ During<br>construction                             | Contractor(s)         | <b>√</b> | 1              |        | N/A            | -  |
| S4.8.1      | Haul roads will be kept clear of dusty materials and will be sprayed<br>with water so as to maintain the entire road surface wet at all<br>times.   | Land site/ During<br>construction                             | Contractor(s)         |          | <b>√</b>       |        | Implemented    | -  |



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| EIA       | Recommended Environmental Protection Measures/   | Objectives of the recommended measures &               |  |   | emen<br>Stage         | tation | Implementation | Relevant Legislation &  |
|-----------|--|--|--|---|-----------------------|--------|----------------|---|
| Reference | Mitigation Measures  | main concerns to address                               | Implementation Agent   | D | C                     | 0      | status         | Guidelines  |
| S4.8.1    | Temporary stockpiles of dusty materials will be either covered<br>entirely by impervious sheets or sprayed with water to maintain<br>the entire surface wet all the time.  | Land site/ During<br>construction                      | Contractor(s)  |   | •                     |        | Implemented    | -   |
| S4.8.1    | Stockpiles of more than 20 bags of cement, dry pulverised fuel ash<br>and dusty construction materials will be covered entirely by<br>impervious sheeting sheltered on top and 3-sides.  | Land site/ During<br>construction                      | Contractor(s)  |   | -                     |        | N/A            | -   |
| S4.8.1    | All exposed areas will be kept wet always to minimise dust emission.   | Land site/ During<br>construction                      | Contractor(s)  |   | 1                     |        | Implemented    | -   |
| S4.8.1    | Ultra-low-sulphur diesel (ULSD) will be used for all construction<br>plant on-site, as defined as diesel fuel containing not more than<br>0.005% sulphur by weight) as stipulated in Environment,<br>Transport and Works Bureau Technical Circular (ETWB-TC(W))<br>No 19/2005 on Environmental Management on Construction Sites.   | Land site/ During<br>construction/ During<br>Operation | Contractor(s)  |   | <ul> <li>✓</li> </ul> | •      | Implemented    | Environment, Transport<br>and Works Bureau<br>Technical Circular (ETWB-<br>TC(W)) No 19/2005 on<br>Environmental<br>Management on<br>Construction Sites |
| S4.8.1    | The engine of the construction equipment during idling will be switched off.   | Land site/ During construction                         | Contractor(s)  |   | 1                     |        | Implemented    | -   |
| S4.8.1    | Concrete batching plant will be required on site. control measures<br>recommended in the Guidance Note on a Best Practicable Means<br>for Cement Works (Concrete Batching Plant) (BPM 3/2 (93)) will<br>be implemented. The control measures recommended in the<br>Guidance Note on a Best Practicable Means for Cement Works<br>(Concrete Batching Plant) (BPM 3/2 (93)) will be implemented. | Land site/ During<br>construction                      | Contractor(s)  |   | -                     |        | N/A            | -   |
| S4.8.1    | Regular maintenance of construction equipment deployed on-site will be conducted to prevent black smoke emission.  | Land site/ During<br>construction                      | Contractor(s)  |   | ~                     |        | Implemented    | -   |
| S4.10     | To ensure proper implementation of the recommended dust<br>mitigation measures and good construction site practices during<br>the construction phase, environmental site audits on weekly basis<br>is recommended throughout the construction period.  | Land site/ During<br>construction                      | Contractor(s)/<br>Environmental Team<br>(ET) & Independent<br>Environmental Checker<br>(IEC) |   | ✓                     |        | Implemented    | -   |



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| EIA<br>Reference | Recommended Environmental Protection Measures/<br>Mitigation Measures  | Objectives of the<br>recommended measures & | Implementation<br>Agent | - | ementa<br>Stage |   | Implementation<br>status | Relevant Legislation &<br>Guidelines                                       |
|------------------|--|---|-------------------------|---|-----------------|---|--------------------------|--|
| Reference        | Antigution Medsul es   | main concerns to address                    | ngene                   | D | C               | 0 | Status                   | Guidelines   |
| Noise            |  |   |                         |   |                 |   |                          |  |
| S5.7             | Only well-maintained plant will be operated on-site and plant will<br>be serviced regularly during the construction phase.   | All area/ During construction               | Contractor(s)           |   | ~               |   | Implemented              | A Practical Guide for the<br>Reduction of Noise from<br>Construction Works |
| S5.7             | Silencers or mufflers on construction equipment will be utilised<br>and will be properly maintained during the construction phase.   | Noise control/ During<br>construction       | Contractor(s)           |   | ~               |   | N/A                      | A Practical Guide for the<br>Reduction of Noise from<br>Construction Works |
| S5.7             | Mobile plant, if any, will be sited as far away from NSRs as possible.   | Noise control/ During<br>construction       | Contractor(s)           |   | ~               |   | N/A                      | A Practical Guide for the<br>Reduction of Noise from<br>Construction Works |
| S5.7             | Machines and plant (such as trucks) that may be in intermittent use<br>will be shut down between work periods or will be throttled down<br>to a minimum.   | Noise control/ During<br>construction       | Contractor(s)           |   | ~               |   | Implemented              | A Practical Guide for the<br>Reduction of Noise from<br>Construction Works |
| S5.7             | Plants known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.   | Noise control/ During<br>construction       | Contractor(s)           |   | <b>√</b>        |   | N/A                      | A Practical Guide for the<br>Reduction of Noise from<br>Construction Works |
| S5.7             | Material stockpiles and other structures will be effectively utilised,<br>wherever practicable, in screening noise from on-site construction<br>activities.  | Noise control/ During<br>construction       | Contractor(s)           |   | •               |   | N/A                      | A Practical Guide for the<br>Reduction of Noise from<br>Construction Works |
| S5.7             | Use of Quite Powered Mechanical Equipment (QPME).  | Noise control/ During<br>construction       | Contractor(s)           |   | <b>√</b>        |   | Implemented              | A Practical Guide for the<br>Reduction of Noise from<br>Construction Works |
| S5.7             | Movable noise barriers of 3m in height with skid footing should be<br>used and located within a few metres of stationary plant and<br>mobile plant such that the line of sight to the NSR is blocked by the<br>barriers. The length of the barrier should be at least five times<br>greater than its height. The noise barrier material should have a<br>superficial surface density of at least 7 kg m-2 and have no o or<br>gappeningss. | Noise control/ During<br>construction       | Contractor(s)           |   | <b>√</b>        |   | N/A                      | A Practical Guide for the<br>Reduction of Noise from<br>Construction Works |
| S5.7             | The noise insulating sheet should be deployed such that there would be no opening or gaps on the joints.   | Noise control/ During<br>construction       | Contractor(s)           |   | -               |   | N/A                      | A Practical Guide for the<br>Reduction of Noise from<br>Construction Works |
| \$5.7            | Construction activities (e.g. excavation/shoring, reinstatement (asphalt), and pipe jacking) will be planned and carried out in sequence, such that items of PME proposed for these activities will not be operated simultaneously.  | Noise control/ During<br>construction       | Contractor(s)           | • | •               |   | Implemented              | A Practical Guide for the<br>Reduction of Noise from<br>Construction Works |
| S5.7             | PMEs will not be used at the works areas near educational institutions with residual impact (ie the "influence area" within a  | Noise control / During<br>construction      | Contractor(s)           |   | 1               |   | N/A                      | A Practical Guide for the<br>Reduction of Noise from                       |





| EIA<br>Reference | Recommended Environmental Protection Measures/<br>Mitigation Measures   | Objectives of the<br>recommended measures &   | Implementation<br>Agent  | - | ement<br>Stage |   | Implementation<br>status | Relevant Legislation &<br>Guidelines |
|------------------|---|---|--|---|----------------|---|--------------------------|--------------------------------------|
|                  |   | main concerns to address  |  | D | С              | 0 |                          |                                      |
|                  | radius of 40m) during school hours in order to reduce impact to the educational institutions.   |   |  |   |                |   |                          | Construction Works                   |
| S5.7             | Noise enclosures or acoustic sheds would be used to cover<br>stationary PME such as generators.<br>Portable/Movable noise enclosure made of material with<br>superficial surface density of at least 7 kg m-2 may be used for<br>screening the noise from operation of the saw/groover, concrete.   | Noise control/ Pre-<br>construction/ During<br>construction                                 | Contractor(s)  |   | ~              |   | N/A                      | -                                    |
| S5.9             | Sawcutting pavement, breaking up of pavement, excavation /shoring, pipe laying, backfilling, reinstatement (concrete) and pipe jacking shall be scheduled outside the examination period.   | Noise control/ Pre-<br>construction/ During<br>construction                                 | Contractor(s)  | ~ | ~              |   | N/A                      | -                                    |
| S5.9             | In view the duration of noise exceedance at Creative Secondary<br>School, PLK Laws Foundation College, TKO Kei Tak Primary School<br>and School of Continuing and Professional Studies-CUHK is limited<br>to 8 weeks, the construction work in the influence areas near the<br>four schools shall be scheduled during long school holidays (eg<br>summer holiday, Easter holiday or Christmas holiday,<br>etc) as far as practicable. Scheduling the construction work for the<br>four schools. | Noise control/ Pre-<br>construction/ During<br>construction                                 | Contractor(s)  |   |                |   | N/A                      | -                                    |
| S5.10            | A noise monitoring programme shall be implemented for the construction phase.   | Designated monitoring<br>stations as defined in EM&A<br>Manual/During construction<br>phase | Environmental Team   |   | •              |   | N/A                      | -                                    |
| S5.10            | The effectiveness of on-site control measures could also be evaluated through the regular site audits.  | All facilities/ During<br>construction  | Contractor(s)/ ET &<br>Independent<br>Environmental Checker<br>(IEC) |   | ✓              |   | Implemented              | -                                    |





| EIA       | Recommended Environmental Protection Measures/  | Objectives of the                                  | Implementation Agent | Imple | nentation | Implementation | <b>Relevant Legislation</b>                      |
|-----------|---|--|----------------------|-------|-----------|----------------|--|
| Reference | Mitigation Measures   | recommended measures &<br>main concerns to address |                      |       | tage      | status         | & Guidelines                                     |
| Water Qua | lity  | mani concerns to address                           |                      | D     | C O       |                |  |
| S6.9      | Dredged marine sediment will be disposed of in a gazetted marine<br>disposal area in accordance with marine dumping permit<br>conditions of the Dumping at Sea Ordinance (DASO).  | Marine Dredging/ During<br>construction            | Contractor(s)        |       | ×         | Implemented    | Dumping at Sea<br>Ordinance (DASO)               |
| S6.9      | Disposal vessels will be fitted with tight bottom seals in order to prevent leakage of material during transport.   | Marine Dredging/ During construction               | Contractor(s)        |       | ×         | Implemented    | -  |
| S6.9      | Barges will be filled to a level, which ensures that material does not<br>spill over during transport to the disposal site and that adequate<br>freeboard is maintained to ensure that the decks are not washed<br>by wave action.  | Marine Dredging/ During<br>construction            | Contractor(s)        |       | ✓         | Implemented    | -  |
| S6.9      | After dredging, any excess materials will be cleaned from decks<br>and exposed fittings before the vessel is moved from the dredging<br>area.   | Marine Dredging/ During<br>construction            | Contractor(s)        |       | ~         | Implemented    | -  |
| S6.9      | All vessels should be well maintained and inspected before use to limit any potential discharges to the marine environment.   | Marine Dredging/ During<br>construction            | Contractor(s)        |       | ~         | Implemented    | -  |
| S6.9      | All vessels must have a clean ballast system.   | Marine Dredging/ During construction               | Contractor(s)        |       | ✓         | Implemented    | -  |
| S6.9      | No discharge of sewage/grey wastewater should be allowed.<br>Waste water from potentially contaminated area on working<br>vessels should be minimized and collected. These kinds of<br>wastewater should be brought back to port and discharged at<br>appropriate collection and treatment system.  | Marine Dredging/ During<br>construction            | Contractor(s)        |       | ~         | Implemented    | -  |
| S6.9      | No soil waste is allowed to be disposed overboard.  | Marine Dredging/ During construction               | Contractor(s)        |       | ~         | N/A            | -  |
| S6.9      | Silt removal facilities such as silt traps or sedimentation facilities will be provided to remove silt particles from runoff to meet the requirements of the TM standard under the WPCO. The design of silt removal facilities will be based on the guidelines provided in ProPECC PN 1/94. All drainage facilities and erosion and sediment control structures will be inspected on a regular basis and maintained to confirm proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit will be removed regularly. | Land site & drainage/ During<br>construction       | Contractor(s)        |       | ~         | Implemented    | ProPECC PN 1/94 TM<br>Standard under the<br>WPCO |





| EIA<br>Reference  | Recommended Environmental Protection Measures/<br>Mitigation Measures  | Objectives of the<br>recommended measures &         | Implementation Agent | - | emer<br>Stag | itation<br>e | Implementation<br>status | Relevant Legislation<br>& Guidelines   |
|-------------------|--|---|----------------------|---|--------------|--------------|--------------------------|--|
|                   |  | main concerns to address                            |                      | D | С            | 0            |                          |  |
| S6.9              | Earthworks to form the final surfaces will be followed up with<br>surface protection and drainage works to prevent erosion caused<br>by rainstorms.  | Land site & drainage/ During<br>construction        | Contractor(s)        |   | ~            |              | Implemented              | -  |
| S6.9              | Appropriate surface drainage will be designed and provided where necessary.  | Land site & drainage/ During<br>construction        | Contractor(s)        |   | ~            |              | Implemented              | -  |
| S6.9              | The precautions to be taken at any time of year when rainstorms<br>are likely together with the actions to be taken when a rainstorm<br>is imminent or forecasted and actions to be taken during or after<br>rainstorms are summarised in Appendix A2 of ProPECC PN 1/94.  | Land site & drainage/ During<br>construction        | Contractor(s)        | • | ~            |              | Implemented              | ProPECC PN 1/94  |
| S6.9              | Oil interceptors will be provided in the drainage system where<br>necessary and regularly emptied to prevent the release of oil and<br>grease into the storm water drainage system after accidental<br>spillages.  | Land site & drainage/ During construction           | Contractor(s)        |   | *            |              | N/A                      | -  |
| S6.9              | Temporary and permanent drainage pipes and culverts provided<br>to facilitate runoff discharge, if any, will be adequately designed for<br>the controlled release of storm flows.  | Land site & drainage/ During construction           | Contractor(s)        |   | ✓            |              | Implemented              | -  |
| S6.9              | The temporary diverted drainage, if any, will be reinstated to the original condition when the construction work has finished or when the temporary diversion is no longer required.   | Land site & drainage/ During construction           | Contractor(s)        |   | ~            |              | N/A                      | -  |
| S6.9              | Appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers over the construction site to prevent direct disposal of sewage into the water environment.   | Land site & drainage/ During<br>construction        | Contractor(s)        |   | ~            |              | Implemented              | -  |
| S6.9 and<br>S6.12 | The sterilization water should be dechlorinated with total residual chlorine (TRC) level below 1 mg/L before discharge to public sewer. In situ testing of TRC should also be conducted for the discharge of chlorinated water for pipeline disinfection to ensure sufficient dechlorination before discharge to public sewer. | Sterilization of water mains prior to commissioning | Contractor(s)        |   | ~            | *            | N/A                      | Technical<br>Memorandum for<br>Effluents Discharged<br>into Drainage and<br>Sewerage Systems |
| S6.9              | The cleaning and flushing water should also be treated and desilted<br>to the relevant discharge requirement stipulated in TM-DSS before<br>discharging.   | Sterilization of water mains prior to commissioning | Contractor(s)        |   | ~            | •            | N/A                      | Inland and Coastal<br>Waters   |





| EIA<br>Reference | Recommended Environmental Protection Measures/<br>Mitigation Measures   | Objectives of the<br>recommended measures &                       | Implementation Agent       | Implementation<br>Stage |   |   | Implementation<br>status        | Relevant Legislation<br>& Guidelines |
|------------------|---|---|----------------------------|-------------------------|---|---|---------------------------------|--------------------------------------|
|                  |   | main concerns to address  |                            | D                       | С | 0 |                                 |                                      |
| S6.9             | Site drainage should be well maintained and good construction<br>practices should be observed to ensure that oil, fuels, solvents and<br>other chemicals are managed, stored and handled properly and do<br>not enter the nearby water streams.                         | Land site & drainage/ During<br>construction/ During<br>operation | Contractor(s)              |                         | • | * | Implemented,<br>reminder issued | -                                    |
| \$6.12           | Regular site inspections will be carried out in order to confirm that<br>regulatory requirements are being met and that contractors are<br>implementing the standard site practice and mitigation measures<br>as proposed to reduce potential impacts to water quality. | During construction   | Contractor(s)/ ET &<br>IEC |                         | • |   | Implemented,<br>reminder issued | -                                    |





| EIA<br>Reference | Recommended Environmental Protection Measures/  | Objectives of the<br>recommended measures &        | Implementation Agent | Imple<br>S | ment<br>Stage |   | Implementation | Relevant Legislation &<br>Guidelines  |
|------------------|---|--|----------------------|------------|---------------|---|----------------|---|
|                  |   | main concerns to address                           |                      | D          | С             | 0 | Status         | Guidelines  |
| Waste Mar        |   | <u> </u>   |                      |            |               |   |                | 1   |
| S8.5             | Nomination of approved personnel to be responsible for standard<br>site practices, arrangements for collection and effective disposal to<br>an appropriate facility of all wastes generated at the site.  | Contract mobilization/<br>During construction      | Contractor(s)        |            | ~             |   | Implemented    | -   |
| S8.5             | Training of site personnel in proper waste management and<br>chemical handling procedures. Training will be provided to<br>workers on the concepts of site cleanliness and appropriate waste<br>management procedures, including waste reduction, reuse and<br>recycling at the beginning of the construction works.  | Contract mobilization/<br>During construction      | Contractor(s)        |            | •             |   | Implemented    | -   |
| S8.5             | Provision of sufficient waste disposal points and regular collection for disposal.  | All area/ During construction/<br>During operation | Contractor(s)        |            | ✓             | ~ | Implemented    | DEVB TC(W) No.<br>8/2010, Enhanced<br>Specification for Site<br>Cleanliness and<br>Tidiness.  |
| \$8.5            | Appropriate measures to reduce windblown litter and dust<br>transportation of waste by either covering trucks or by<br>transporting wastes in enclosed containers.  | All area/ During construction                      | Contractor(s)        |            | •             |   | Implemented    | DEVB TC(W) No.<br>8/2010,<br>Enhanced<br>Specification for Site<br>Cleanliness and<br>Tidiness.   |
| S8.5             | A waste management plan (WMP) as stated in the "ETWB TC(W)<br>No. 19/2005, Environmental Management on Construction Sites"<br>for the amount of waste generated, recycled and disposed of<br>(including the disposal sites) will be established and implemented<br>during the construction phase as part of the Environmental<br>Management Plan (EMP). The Contractor will be required to<br>prepare the EMP and submits it to the Architect/ Engineer under<br>the Contract for approval prior to implementation. | All area/ During construction                      | Contractor(s)        |            | •             |   | Implemented    | ETWB TC(W) No.<br>19/2005,<br>Environmental<br>Management on<br>Construction Sites  |
| S8.5             | Separation of chemical wastes for special handling and<br>appropriate treatment at the Chemical Waste Treatment Centre at<br>Tsing Yi.  | All area/ During construction                      | Contractor(s)        |            | •             |   | Implemented    | Chapters 2 & 3 Code of<br>Practice on the<br>Packaging, Labelling &<br>Storage of Chemical<br>Wastes published<br>under the Waste<br>Disposal Ordinance<br>(Cap 354),<br>Section 35 |
| S8.5             | Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.  | Land site/ During construction                     | Contractor(s)        |            | ~             |   | Implemented    | Waste Disposal<br>Ordinance (Cap 354)   |





| EIA       | Recommended Environmental Protection Measures/  | Objectives of the<br>recommended measures &            | Implementation Agent | - | ementa<br>Stage | Implementation | Relevant Legislation &   |
|-----------|---|--|----------------------|---|-----------------|----------------|--|
| Reference | Mitigation Measures   | main concerns to address                               | 1 0                  | D |                 | 0 Status       | Guidelines   |
| S8.5      | A recording system for the amount of wastes generated/ recycled<br>and disposal sites. The trip- ticket system will be included as one<br>of the contractual requirements and implemented by the<br>contractor(s).  | Land site/ During construction                         | Contractor(s)        |   | •               | Implemented    | DEVB TC(W) No.<br>6/2010,<br>Trip Ticket System for<br>Disposal of<br>Construction &<br>Demolition Materials |
| S8.5      | Segregation and storage of different types of waste in different<br>containers, skips or stockpiles to enhance reuse or recycling of<br>material and their proper disposal.   | Land site/ During<br>construction/ During<br>operation | Contractor(s)        |   | ✓               | Implemented    | WBTC 32/92, The Use<br>of Tropical Hard<br>Wood on<br>Construction Site                                      |
| S8.5      | Encourage collection of aluminium cans and waste paper by<br>individual collectors during construction with separate labelled<br>bins provided to segregate these wastes from other general refuse<br>by the workforce.   | Land site/ During construction                         | Contractor(s)        |   | ✓               | Implemented    | ETWB TCW No.<br>33/2002,<br>Management of<br>Construction and<br>Demolition Material<br>Including Rock       |
| S8.5      | Any unused chemicals and those with remaining functional capacity will be recycled as far as possible.  | Land site/ During construction                         | Contractor(s)        |   | ~               | N/A            | -  |
| S8.5      | Use of reusable non-timber formwork to reduce the amount of C&D materials.  | All areas/ During construction                         | Contractor(s)        |   | •               | Implemented    | WBTC 32/92, The Use<br>of Tropical Hard<br>Wood on<br>Construction Site                                      |
| S8.5      | Prior to disposal of construction waste, wood, steel and other<br>metals will be separated to the extent practical, for re-use and/or<br>recycling to reduce the quantity of waste to be disposed of to<br>landfill.  | All areas/ During construction                         | Contractor(s)        |   | •               | Implemented    | DEVB TC(W) No.<br>6/2010,<br>Trip Ticket System for<br>Disposal of<br>Construction &<br>Demolition Materials |
| S8.5      | Proper storage and site practices to reduce the potential for damage or contamination of construction materials.  | All areas/ During construction                         | Contractor(s)        |   | ~               | Implemented    | -  |
| S8.5      | Plan and stock construction materials carefully to reduce amount<br>of waste generated and avoid unnecessary generation of waste.   | All areas/ During construction                         | Contractor(s)        |   | -               | Implemented    | -  |
| S8.5      | A Sediment Quality Report (SQR) for sampling and chemical testing of the sediment will be prepared and submitted to the EPD for approval. The approved detailed sampling and chemical testing will be carried out prior to the commencement of the dredging activities to confirm the sediment disposal method. | Marine works/ During<br>construction                   | Contractor(s)        |   | •               | N/A            | ETWB TC(W) No.<br>34/2002<br>and Dumping at Sea<br>Ordinance (DASO)  |





| EIA       | Recommended Environmental Protection Measures/  | Objectives of the recommended measures &      | Implementation Agent   | Impl | emer<br>Stag | ntation | Implementation | Relevant Legislation &   |
|-----------|---|---|--|------|--------------|---------|----------------|--|
| Reference | Mitigation Measures   | main concerns to address                      | Implementation Agent   | D    | C            | 0       | Status         | Guidelines   |
| S8.5      | The management of dredged/ excavated sediment management requirement from ETWB TC(W) No. 34/2002 will be incorporated in the Specification of the Contract Documents.   | Marine works/ During<br>construction          | WSD/ Contractor(s)   |      | ~            |         | Implemented    | ETWB TC(W) No.<br>34/2002 and Dumping<br>at Sea Ordinance<br>(DASO)  |
| S8.5      | The contractor will open a billing account with EPD in accordance<br>with the Waste Disposal (Charges for Disposal of Construction<br>Waste) Regulation for the payment of disposal charges.  | Contract mobilization/ During<br>construction | Contractor(s)  |      | ~            |         | Implemented    | Cap 354N Waste<br>Disposal (Charges for<br>Disposal of<br>Construction Waste)<br>Regulation                  |
| S8.5      | A trip-ticket system will be established in accordance with DEVB TC(W) No. 6/2010 to monitor the reuse of surplus excavated materials off-site and disposal of construction waste and general refuse at transfer facilities/ landfills, and to control fly-tipping. | Contract mobilization/<br>During construction | Contractor(s)  |      | ✓            |         | Implemented    | DEVB TC(W) No.<br>6/2010,<br>Trip Ticket System for<br>Disposal of<br>Construction &<br>Demolition Materials |
| S8.5      | The project proponent will also conduct regular inspection of the<br>waste management measures implemented on site as described in<br>the Waste Management Plan.  | All area/ During construction                 | Contractor(s)/<br>Environmental Team<br>(ET) & Independent<br>Environmental<br>Checker (IEC) |      | ~            |         | Implemented    | ETWB TC(W) No.<br>19/2005,<br>Environmental<br>Management on<br>Construction Sites                           |
| S8.5      | A recording system (similar to summary table as shown in Annex 5 and Annex 6 of Appendix G of ETWB TC(W) No. 19/2005) for the amount of waste generated, recycled and disposed of (including the disposal sites) will be established during the construction phase. | All area/ During construction                 | Contractor(s)  |      | ~            |         | Implemented    | Annex 5 and Annex 6<br>of Appendix G of<br>ETWB TC(W) No.<br>19/2005   |
| S8.5      | Inert C&D materials (public fill) will be reused within the Project as far as practicable.  | All area/ During construction                 | Contractor(s)  |      | ~            |         | Implemented    | -  |
| S8.5      | Public fill and construction waste shall be segregated and stored in different containers or skips to facilitate reuse or recycling of materials and their proper disposal.   | All area/ During construction                 | Contractor(s)  |      | ~            |         | Implemented    | -  |
| S8.5      | Specific areas of the work site will be designated for such segregation and storage if immediate use is not practicable.  | All area/ During construction                 | Contractor(s)  |      | ~            |         | Implemented    | -  |
| S8.5      | To reduce the potential dust and water quality impacts of site<br>formation works, C&D materials will be wetted as quickly as<br>possible to the extent practice after filling.   | All area/ During construction                 | Contractor(s)  |      | ~            |         | Implemented    | Air Pollution Control<br>(Construction Dust)<br>Regulation (Cap 311R);<br>WPCO (Cap 358)                     |





| EIA       | Recommended Environmental Protection Measures/   | Objectives of the<br>recommended measures &                   | Implementation Agent |   | emer<br>Stag | itation<br>e | Implementation   | Relevant Legislation &   |
|-----------|--|---|----------------------|---|--------------|--------------|--|--|
| Reference | Mitigation Measures  | main concerns to address                                      |                      | D | C            | 0            | Status   | Guidelines   |
| S8.5      | Open stockpiles of excavated/ fill materials or construction wastes<br>on-site should be covered with tarpaulin or similar fabric.   | Land site/ During<br>Construction, particularly<br>dry season | Contractor(s)        |   | ~            |              | Implemented  | Air Pollution Control<br>(Construction Dust)<br>Regulation (Cap 311R)                          |
| S8.5      | Chemical waste container shall be suitable for the substance they<br>are holding, resistant to corrosion, maintained in a good condition,<br>and securely closed.  | All area/ During<br>construction/ During<br>operation         | Contractor(s)/WSD    |   | ✓            | •            | Implemented  |  |
| S8.5      | Chemical waste container shall have a capacity of less than 450 L unless the specifications have been approved by the EPD.   | All area/ During<br>construction/ During<br>operation         | Contractor(s)/WSD    |   | ✓            | •            | Implemented  |  |
| S8.5      | A label in English and Chinese shall be displayed on the chemical container in accordance with instructions prescribed in Schedule 2 of the Regulations.   | All area/ During<br>construction/ During<br>operation         | Contractor(s)/WSD    |   | •            | •            | Implemented  |  |
| S8.5      | Storage areas for chemical waste shall be enclosed on at least 3 sides.  | All area/ During<br>construction/ During<br>operation         | Contractor(s)/WSD    |   | ~            | •            | Implemented  | Waste Disposal   |
| S8.5      | Storage areas for chemical waste shall have an impermeable floor<br>and bunding, of capacity to accommodate 110% of the volume of<br>the largest container or 20% by volume of the chemical waste<br>stored in that area, whichever is the greatest. | All area/ During<br>construction/ During<br>operation         | Contractor(s)/WSD    |   | ~            | •            | Implemented  | (Chemical Waste)<br>(General) Regulation;<br>Code of Practice on<br>the Packaging,             |
| S8.5      | Storage areas for chemical waste shall have adequate ventilation.  | All area/ During<br>construction/ During<br>operation         | Contractor(s)/WSD    |   | 1            | •            | Implemented  | Handling and Storage of Chemical Wastes  |
| S8.5      | Storage areas for chemical waste shall be covered to prevent<br>rainfall entering (water collected within the bund must be tested<br>and disposed of as chemical waste, if necessary).   | All area/ During<br>construction/ During<br>operation         | Contractor(s)/WSD    |   | •            | ~            | Implemented  |  |
| S8.5      | Storage areas for chemical waste shall be arranged so that incompatible materials are appropriately separated.   | All area/ During<br>construction/ During<br>operation         | Contractor(s)/WSD    |   | ~            | •            | Implemented  |  |
| S8.5      | General refuse will be stored in enclosed bins or compaction units separately from construction and chemical wastes.   | All area/ During<br>construction/ During<br>operation         | Contractor(s)/WSD    |   | •            | •            | Implemented,<br>reminder and<br>observation<br>issued. |  |
| S8.5      | Adequate number of waste containers will be provided to avoid<br>over-spillage of waste.   | All area/ During<br>construction/ During<br>operation         | Contractor(s)/WSD    |   | •            | •            | Implemented  | DEVB TC(W) No.<br>8/2010<br>Enhanced<br>Specification for Site<br>Cleanliness and<br>Tidiness. |





| EIA       | Recommended Environmental Protection Measures/   | Objectives of the<br>recommended measures &           | Implementation Agent | Imp | leme<br>Stag | ntation<br>ge | Implementation | Relevant Legislation &                       |
|-----------|--|---|----------------------|-----|--------------|---------------|----------------|--|
| Reference | Mitigation Measures  | main concerns to address                              |                      | D   | C            | 0             | Status         | Guidelines                                   |
| S8.5      | A reputable waste collector will be employed by the Contractor to<br>remove general refuse from the site, separately from construction<br>and chemical wastes, on a daily basis to minimise odour, pest and<br>litter impacts.   | All area/ During<br>construction/ During<br>operation | Contractor(s)/WSD    |     | ~            | <b>~</b>      | Implemented    | -  |
| S8.5      | Recycling bins will be provided at strategic locations within the<br>Site to facilitate recovery of recyclable materials (including<br>aluminum can, waste paper, glass bottles and plastic bottles) from<br>the Site. Materials recovered will be sold for recycling. | All area/ During<br>construction/ During<br>operation | Contractor(s)/WSD    |     | -            | <b>√</b>      | Implemented    | -  |
| S8.5      | To avoid any odour and litter impact, accurate number of portable toilets will be provided for workers on-site.  | All area/ During construction                         | Contractor(s)        |     | 1            |               | Implemented    | -  |
| S8.5      | The burning of refuse on construction sites is prohibited by law.  | All area/ During construction                         | Contractor(s)        |     | 1            |               | Implemented    | Air Pollution Control<br>Ordinance (Cap 311) |
| S8.7      | To facilitate monitoring and control over the contractors' performance on waste management, a waste inspection and audit programme will be implemented throughout the construction phase.  | All facilities/ During<br>construction                | ET/ IEC              |     |              |               | Implemented    | -  |





| EIA               | Recommended Environmental Protection Measures/   | Objectives of the<br>recommended measures &                                    | Implementation Agent | Impl  | emer<br>Stag | ntation<br>e | Implementation | Relevant Legislation & |
|-------------------|--|--|----------------------|-------|--------------|--------------|----------------|------------------------|
| Reference         | Mitigation Measures  | main concerns to address   |                      | D     | С            | 0            | Status         | Guidelines             |
| Ecology           |  | 1  |                      |       |              | 1            | ſ              |                        |
| \$9.7             | For slope mitigation works within the Clear Water Bay Country<br>Park, to avoid tree felling and damages to trees, the exact locations<br>of the flexible barrier foundation plates, soil nails and rock dowels<br>can be adjusted during detailed design, and a setback distance<br>from existing trees is recommended to be maintained as far as<br>practical. A detailed specification describing the exact locations of<br>the flexible barrier foundation plates, soil nails and rock dowels<br>will be prepared to illustrate how the setback distance from<br>existing trees would be implemented for tree avoidance. | Slope mitigation works area/<br>During detailed design/ During<br>construction | Contractor(s)        | ✓<br> | •            |              | N/A            | -                      |
| S9.7              | Pruning of tree canopies along the alignment of the flexible barriers shall be limited to a minimum.   | Slope mitigation works area/<br>During construction                            | Contractor(s)        |       | 1            |              | N/A            |                        |
| \$9.7             | The alignment of flexible barriers shall be optimized to preserve<br>all species of conservation interest and minimize the impact to the<br>existing vegetation as far as practicable. All individuals of<br><i>Marsdenia lachnostoma</i> within the slope mitigation areas shall be<br>retained <i>in- situ</i> , by positioning the alignment of flexible barrier at<br>a minimum 1.5m in a radius away from these individuals.  | Slope mitigation works area/<br>During detailed design/ During<br>construction | Contractor(s)        | ✓     | •            |              | N/A            | -                      |
| S9.7 and<br>9.10  | At the detailed design stage prior to the commencement of the slope mitigation works, a vegetation survey shall be carried out at the slope mitigation areas within the Clear Water Bay Country Park to assess the condition and identify the location of each individual of <i>Marsdenia lachnostoma</i> and other flora species of conservation interest that may be directly affected by the construction works.  | Slope mitigation works area/<br>During detailed design/ During<br>construction | Contractor(s)        | ✓     |              |              | Implemented    | -                      |
| \$9.7             | Temporary fencing will be installed to fence off the concerned<br>species either in groups of individually within the works area and<br>in the close proximity to prevent from being damaged and<br>disturbed during construction. A sign identifying the site shall be<br>attached to the fence and flagging tape shall be attached to the<br>individuals to visualize their locations.   | Slope mitigation works area/<br>During construction                            | Contractor(s)        |       | •            |              | N/A            | -                      |
| S9.7 and<br>S9.10 | A specification for fencing and demarcating individuals of <i>Marsdenai lachnostoma</i> (or other flora species of conservation interest, if found) adjacent to the proposed alignment of the flexible barriers will be prepared to protect the species.   | Slope mitigation works area/<br>During construction                            | Contractor(s)        |       | ~            |              | N/A            | -                      |
| S9.7              | Induction training shall also be provided to all site personnel in<br>order to brief them on this flora of conservation interest including<br>the locations and their importance.  | Slope mitigation works area/<br>During construction                            | Contractor(s)        |       | ~            |              | N/A            | -                      |
| S9.7              | The resident site supervisory staff will closely monitor the conditions of concerned individuals during construction of  | Slope mitigation works area/<br>During construction                            | Contractor(s)        |       | ~            |              | N/A            | -                      |





| EIA<br>Reference | Recommended Environmental Protection Measures/  | Objectives of the<br>recommended measures & | Implementation Agent | Impl | emer<br>Stag | ntation<br>e | Implementation<br>Status | Relevant Legislation &<br>Guidelines |
|------------------|---|---|----------------------|------|--------------|--------------|--------------------------|--------------------------------------|
| Reference        | Mitigation Measures   | main concerns to address                    |                      | D    | С            | 0            | Status                   | Guidennes                            |
|                  | flexible barriers in the close proximity.   |   |                      |      |              |              |                          |                                      |
| S9.7             | Erect fences along the boundary of the works area before the<br>commencement of works to prevent vehicle movements and<br>encroachment of personnel onto adjacent areas.  | All area/ During construction               | Contractor(s)        |      | 1            |              | Implemented              | -                                    |
| S9.7             | Regularly check the work site boundaries to ensure that they are<br>not breached and that damage does not occur to surrounding<br>areas.  | All area/ During construction               | Contractor(s)/ ET    |      | ~            |              | Implemented.             | -                                    |
| S9.7             | Avoid any damage and disturbance, particularly those caused by<br>filling and illegal dumping, to the surrounding habitats through<br>proper management of waste disposal.  | All area/ During construction               | Contractor(s)        |      | ~            |              | Implemented              | -                                    |
| S9.7             | Reinstate temporarily affected areas, particularly the habitats of<br>plantation and shrubland-grassland immediately after<br>completion of construction works, through on-site tree/shrub<br>planting. The tree/shrub species will be chosen with reference to<br>those in the surrounding area. | All area/ During construction               | Contractor(s)        |      | *            |              | N/A                      | -                                    |
| S9.7             | Affected habitats within the Clear Water Bay Country Bay shall be<br>reinstated by hydro-seeding and planting of climbers and native<br>shrub seedlings where practical upon completion of the slope<br>mitigation works.   | All area/ During construction               | Contractor(s)        |      | ~            |              | N/A                      | -                                    |





| EIA       | Recommended Environmental Protection Measures/   | Objectives of the<br>recommended measures & | Implementation Agent |   | emer<br>Stag | itation<br>e | Implementation | Relevant Legislation & |
|-----------|--|---|----------------------|---|--------------|--------------|----------------|------------------------|
| Reference | - <del>0</del>   | main concerns to address                    |                      | D | С            | 0            | Status         | Guidelines             |
| Landscap  |  |   | 1                    | - | 1 4          |              | 1              |                        |
| S11.10 &  |  | All area/ Detailed design/                  | WSD/ Contractor(s)   | ~ | ✓            | ~            | Implemented    | -                      |
| 11.11     | such as the contractor's office, will be minimized to a practical  | During construction/ During                 |                      |   |              |              |                |                        |
|           | minimum. (MM1)   | operation                                   |                      |   |              |              |                |                        |
| S11.10 &  |  | All area/ Detailed design/                  | WSD/ Contractor(s)   | √ | ~            | ✓            | Implemented    | -                      |
| 11.11     | minimize the landscape footprint of the Project and above  | During construction/ During                 |                      |   |              |              |                |                        |
|           | ground facilities, while satisfying all other requirements. (MM2)  | operation                                   |                      |   |              |              |                |                        |
| S11.10 &  | Design principles will be adopted to take into account the   | All area/ Detailed design/                  | WSD/ Contractor(s)   | √ | 1            | ~            | Implemented    | -                      |
| 11.11     | surrounding area, particularly Clear Water Bay Country Park  | During construction/ During                 |                      |   |              |              |                |                        |
|           | behind and the nearby waterfront, with due consideration given   | operation                                   |                      |   |              |              |                |                        |
|           | to:<br>- green roofs where practical (i.e. without equipment on the  |   |                      |   |              |              |                |                        |
|           | roof);   |   |                      |   |              |              |                |                        |
|           | - roadside planting;   |   |                      |   |              |              |                |                        |
|           | - aesthetic treatment of all structures;   |   |                      |   |              |              |                |                        |
|           | - vertical greening;   |   |                      |   |              |              |                |                        |
|           | - screen planting along application site; and  |   |                      |   |              |              |                |                        |
|           | - landscape enhancement with amenity planting where practical  |   |                      |   |              |              |                |                        |
|           | including planting along the edge (site boundary) fence with   |   |                      |   |              |              |                |                        |
|           | native shrubs where feasible, to reduce their visual impact and  |   |                      |   |              |              |                |                        |
|           | blend them into the surrounding landscape. (MM3)   |   |                      |   |              |              |                |                        |
| S11.10 &  | All trees within the Project Site or the potential slope mitigation  | All area/ Detailed design/                  | WSD/ Contractor(s)   | ✓ | ✓            | ✓            | Implemented    | ETWB TCW No. 3/2006    |
| 11.11     | works area will be carefully protected during construction   | During construction/ During                 |                      |   |              |              |                | -                      |
|           | according to DEVB TCW No. 10/2013 – Tree Preservation (MM4)  | operation                                   |                      |   |              |              |                | Tree Preservation.     |
| S11.10 &  | No tree within the Country Park will be felled. Trees within the   | All area/ Detailed design/                  | WSD/ Contractor(s)   | ~ | ✓            | ✓            | Implemented    | DEVB TC(W) No.         |
| 11.11     | Site unavoidably affected by the works will be transplanted  | During construction/ During                 |                      |   |              |              |                | 10/2013                |
|           | where necessary and practical. For trees that need to be felled,   | operation                                   |                      |   |              |              |                |                        |
|           | compensatory planting will be provided to the satisfaction of  |   |                      |   |              |              |                |                        |
|           | relevant Government departments.   |   |                      |   |              |              |                |                        |
|           | A compensatory tree planting proposal including locations of<br>tree compensation will be submitted to seek relevant |   |                      |   |              |              |                |                        |
|           | government department's approval, in accordance with DEVB  |   |                      |   |              |              |                |                        |
|           | TC(W) No. 10/2013. (MM5)   |   |                      |   |              |              |                |                        |
| S11.10 &  | Any slope mitigation works necessary to address natural terrain  | All area/ Detailed design/                  | WSD/ Contractor(s)   | √ | 1            | ✓            | N/A            |                        |
| 11.11 a   | hazards, will be minimized to minimize any potential   | During construction/ During                 |                      |   |              |              |                |                        |
|           | environmental impact to the Country Park e.g. soil nailing and   | operation                                   |                      |   |              |              |                |                        |
|           | rock stabilization will aim to avoid existing trees e.g. should any  | operation                                   |                      |   |              |              |                |                        |
|           | restoration of vegetation be necessary, the best planting matrix   |   |                      |   |              |              |                |                        |
|           | with native species will be established, with the aim of   |   |                      |   |              |              |                |                        |
|           | resembling the existing vegetation. (MM6)  |   |                      |   |              |              |                |                        |



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| EIA<br>Reference | Recommended Environmental Protection Measures/<br>Mitigation Measures | Objectives of the<br>recommended measures & | Implementation Agent | - | emen<br>Stag        | tation<br>e | Implementation<br>Status | Relevant Legislation &<br>Guidelines |
|------------------|---|---|----------------------|---|---------------------|-------------|--------------------------|--------------------------------------|
| Reference        | Miligation Measures   | main concerns to address                    |                      | D | С                   | 0           | Status                   | Guidelines                           |
| S11.10 &         | Dredging works for the installation of intake structures and          | All area/ Detailed design/                  | WSD/ Contractor(s)   | ~ | ✓                   | ✓           | Implemented              |                                      |
| 11.11            | outfall diffusers should be minimized to avoid or reduce any          | During construction/ During                 |                      |   |                     |             |                          |                                      |
|                  | potential environmental impacts to as low as reasonably               | operation                                   |                      |   |                     |             |                          |                                      |
|                  | practicable (ALARP). The intake and outfall structures (e.g.          |   |                      |   |                     |             |                          |                                      |
|                  | intake openings and diffuser heads) will be prefabricated and         |   |                      |   |                     |             |                          |                                      |
|                  | transferred to site for installation. (MM7)                           |   |                      |   |                     |             |                          |                                      |
| S11.10 &         | All night-time lighting will be reduced to a practical minimum        | All area/ Detailed design/                  | WSD/ Contractor(s)   | ~ | <ul><li>✓</li></ul> | ~           | Implemented              | -                                    |
| 11.11            | both in terms of number of level and will be hooded and               | During construction/ During                 |                      |   |                     |             |                          |                                      |
|                  | directional. (MM8) units and lux level and will be hooded and         | operation                                   |                      |   |                     |             |                          |                                      |
|                  | directional. (MM8)  |   |                      |   |                     |             |                          |                                      |





| EIA<br>Reference | Recommended Environmental Protection Measures/  | Objectives of the<br>recommended measures &<br>main concerns to address |                      | Implementation<br>Stage |          |   | Implementation | Relevant Legislation & |
|------------------|---|---|----------------------|-------------------------|----------|---|----------------|------------------------|
|                  | Mitigation Measures   |   | Implementation Agent | t D                     |          | 0 | Status         | Guidelines             |
| Landfill Ga      | as Hazard   |   |                      | l                       |          |   |                |                        |
| S12.7            | During all works, safety procedures should be implemented to<br>minimise the risks of fires and explosions, asphyxiation of<br>workers and toxicity effects resulting from contact with<br>contaminated soil and groundwater.   | All area/ Detailed design/<br>During construction/operation             | Contractor(s)        | •                       | <b>√</b> | • | Implemented    | -                      |
| S12.7            | During trenching and excavation as well as creation of confined<br>spaces at near to or below ground level, precautions should be<br>clearly laid down and rigidly Gas detection equipment and<br>appropriate breathing apparatus should be available and used<br>when entering confined spaces or trenches deeper than 1 meter.  | All area/ Detailed design/<br>During construction/operation             | Contractor(s)        | *                       | •        | * | Implemented    |                        |
| S12.7            | The Contractor should make the workers are aware of potential<br>hazards of working in confined spaces (any chamber, manhole or<br>culvert which is large enough to permit access to personnel). Such<br>work in confined spaces is controlled by the Factories and<br>Industrial Undertakings (Confined Spaces) Regulations of the<br>Factories and Industrial Undertakings Ordinance.<br>Following the Safety Guide to Working in Confined Spaces<br>ensures compliance with the above regulations. | All area/ Detailed design/<br>During construction/operation             | Contractor(s)        | •                       | •        | • | Implemented    |                        |
| S12.7            | Safety officers, specifically trained with regard to landfill gas and<br>leachate related hazards and the appropriate actions to take in<br>adverse circumstances, should be present on the site throughout<br>the works, in particular, when works are undertaken below<br>grade.  | All area/ Detailed design/<br>During construction/operation             | Contractor(s)        | •                       | •        | * | Implemented    |                        |
| S12.7            | All personnel who work on site and all visitors to the site should<br>be made aware of the possibility of ignition of gas in the vicinity<br>of the works, the possible presence of contaminated water and<br>the need to avoid physical contact with it.   | All area/ Detailed design/<br>During construction/operation             | Contractor(s)        | •                       | •        | - | Implemented    |                        |
| S12.7            | Monitoring for landfill gas should be undertaken in all<br>excavations, manholes, chambers (particularly during pipe<br>jacking) and any confined spaces through the use of an<br>intrinsically safe portable instrument, appropriately calibrated<br>and capable of measuring the concentrations of methane. carbon<br>dioxide and oxygen.   | All area/ Detailed design/<br>During construction/operation             | Contractor(s)        | •                       | •        | • | Implemented    |                        |
| S12.7            | Monitoring frequency and areas to be monitored should be<br>specified prior to commencement of groundwork, either by the<br>Safety Officer, or by an appropriately qualified person. All<br>measurements should be recorded and documented.   | All area/ Detailed design/<br>During construction/operation             | Contractor(s)        | •                       | ~        | ~ | Implemented    |                        |
| S12.7            | Proceed drilling with adequate care and precautions against the potential hazards which may be encountered.   | All area/ Detailed design/<br>During construction/operation             | Contractor(s)        | 1                       | ✓        | 1 | Implemented    |                        |





| EIA<br>Reference | Recommended Environmental Protection Measures/<br>Mitigation Measures   | Objectives of the<br>recommended measures &<br>main concerns to address |                      | Implementation<br>Stage |          |   | Implementation | Relevant Legislation & |
|------------------|---|---|----------------------|-------------------------|----------|---|----------------|------------------------|
|                  |   |   | Implementation Agent | D                       |          |   |                | Guidelines             |
| S12.7            | Prior to the commencement of the site works, the drilling contractor should devise a 'method-of- working' statement covering all normal and emergency procedures (including but not limited to number of operatives, experience and special skills of operatives, normal method of operations, emergency procedures, <i>supervisors</i> responsibilities, storage and use of safety equipment, safety procedures and signs, barriers and guarding). The site <i>supervisor</i> and all operatives must be familiar with this statement. | All area/ During<br>construction/operation                              | Contractor(s)        | •                       | •        | ~ | Implemented    |                        |
| S12.7            | Where below ground service entries are necessary to the Incoming Switchgear Room, 132 kV Substation and Chlorine Store (I) and (II), the entry point should be sealed to prevent gas entry. In addition, any below grade cable trenches entering the Incoming Switchgear Room and 132 kV Substation can become the pathway for landfill gas and hence grilled metal covers should be used.  | All area/ Detailed design/<br>During construction/operation             | Contractor(s)        | ✓                       | ~        | ~ | N/A            |                        |
| S12.7            | It is recommended regular landfill gas monitoring should be<br>carried out at the Incoming Switchgear Room, 132 kV Substation<br>and Chlorine Store (I) and (II). The monitoring frequency will be<br>monthly for the first year of operation. If the monitoring results<br>show no sign of landfill gas migration, reduce the monitoring<br>frequency to once every six months.  | All area/ Detailed design/<br>During construction/operation             | Contractor(s)        | •                       | <b>√</b> | ~ | N/A            |                        |
| S12.7            | The manholes and utility pits within the Project Site and along the fresh water mains. Each manhole/ utility pit should be monitored with two measurements (at mid depth and base). Each measurement should be monitored for a minimum of 10 minutes. A steady reading and peak reading should be recorded at each manhole/ utility pit and for each measurement. The need for venting the manhole/ utility pit and further monitoring will be reviewed after the initial monitoring.   | All area/ Detailed design/<br>During construction/operation             | Contractor(s)        | •                       | ~        | ~ | Implemented    |                        |
| S12.7            | All construction, operation and maintenance personnel working<br>on-site as well as visitors should be made aware of the hazards of<br>landfill gas and its possible presence on-site. This should be<br>achieved through a combination of posting warning signs in<br>prominent places and also by access to detailed information on<br>landfill gas hazards and the designs and procedural means by<br>which these hazards are being minimized on-site.   | All area/ Detailed design/<br>During construction/operation             | Contractor(s)        | •                       | •        | ~ | Implemented    |                        |





## Appendix D

# Impact Monitoring Schedule of the Reporting Month

|  |  |  | Water Quality Monitoring Sched | ule   |     |   |
|--|--|--|--------------------------------|---|-----|---|
|  |  |  | Sep-22                         |   |     |   |
|  | Mon  | Tue  | Wed                            | Thu   | Fri | Sat   |
|  |  |  |                                | 1   | 2   | 3   |
|  |  |  |                                | Impact Water Quality monitoring for<br>CE, CF, WSR1, WSR2, WSR4, WSR4, WSR4, WSR3,<br>WSR54, WSR47<br>Thall Period<br>Ebb Tidle: 14:00-71:00<br>Flood Tale: 08:00-11:00<br>Monitoring Time:<br>Mid-ebb: 13:00-18:09<br>Mid-0bcet: 05:00-13:00       |     | Impact Water Quality monitoring for<br>CE, CF, WSR1, WSR2, WSR3, WSR4, WSR4, WSR8,<br>WSR3Q, WSR37<br>Ebb Tide: 15:23-18:52<br>Flood Tide: 09:53-18:23<br>Monitoring Time:<br>Mid-ebb, 15:16-19:00<br>Mid-flood. 08:00:15:16            |
|  |  |  |                                | Mid-100d. 05.30-15.00   |     |   |
|  | 5  | 6  | 7                              | 8   | 9   | 10  |
|  |  | Impact Water Quality monitoring for<br>CE, CF, WSR1, WSR2, WSR4, WSR4, WSR43,<br>WSR54, WSR57, WSR47,<br>Thial Fernda<br>Ebb Tatle: 008-01-030<br>Fload Tatle: 14-30-18:00<br><u>Monitoring Time</u> ,<br>Mid-ebb: 0427-13:504<br>Mid-100e: 130-02:000 |                                | Impact Water Quality monitoring for<br>CE, CF, WSR1, WSR2, WSR4, WSR4, WSR58,<br>WSR56, WSR57<br><u>Thall Period</u><br>Erbb Tidle: 0500-1200<br>Flood Tidle: 16:00-1900<br><u>Monitoring Time</u><br>Mid-ebb: 06:02-14:21<br>Mid-10:01:14:21-21:32 |     | Impact Water Quality monitoring for<br>CE, CF, WSR1, WSR2, WSR4, WSR4, WSR4, WSR50,<br><u>Tabla Penole</u><br>Ebb Tale: 10:00-13:00<br>Flood Tale:10:00-13:00<br><u>Monitoring Tanee</u><br>Md-ebb/08:47-15:30<br>Mid-flood:15:30:22:27 |
|  | 12   | 13   | 14                             | 15  | 16  | 17  |
|  |  | Impact Water Quality monitoring for<br>CE, CF, WSR1, WSR2, WSR4, WSR4, WSR3,<br>WSR3, WSR3, WSR3, WSR4, WSR3,<br>Tital Provid<br>Ebb Title (2004)500<br>Flood Tale: 000011100<br>Monitoring Time:<br>Mid-bbb: 11:1547700<br>Mid-dbbb: 12:277-11:18     |                                | Impact Water Quality monitoring for<br>CE, CF, WSRI, WSRI, WSRI, WSRI, WSRI3,<br>WSRI3, WSRI3, WSRI3,<br>Table Provid:<br>Bib Tale: 13304.700<br>Fibod Tale: 0000-1115<br><u>Monitoring Time</u><br>Mid-ethe: 1300-1739<br>Mid-fload: 000-13300     |     | Impact Water Quality monitoring for<br>CE, CF, WSR1, WSR2, WSR3, WSR4, WSR3,<br>WSR4, WSR37<br>Tabl Period:<br>B4b Table, 1515,1845<br>Fiboo Table (1920) 15:50<br>Monitoring Time:<br>Mid-able, 1600-19:00<br>Mid-fiboot, 09:11-600    |
|  | 19   | 20   | 21                             | 22  | 23  | 24  |
|  |  | Impact Water Quality monitoring for<br>CE, CF, WSRI, WSRZ, WSR3, WSR4, WSR4, WSR3,<br>WSR3, WSR47<br>Tistal Period:<br>Eab Tatle: 0500-1000<br>Fload Tatle: 16:00-19:00<br><u>Monitoring Time</u> ,<br>Mid-ebb: 01:00-12:52<br>Mid-fload: 12:22:33:9   |                                | Impact Water Quality monitoring for<br>CE, CF, WSR1, WSR2, WSR3, WSR4, WSR3,<br>WSR5, WSR37<br>Thiel Period<br>Ebb Tidle: 0515-1145<br>Flood Tidle: 15:00-19:00<br><u>Monitoring Time</u><br>Mid-ebb: 06:00-14:00<br>Mid-flood: 14:00-21:00         |     | Inpuct Water Quality monitoring for<br>CE, CF, WSR1, WSR2, WSR3, WSR4, WSR16, WSR<br>WSR80, WSR37<br>Ebb Tide: 09:00-13:00<br>Flood Tide: 16:00-19:00<br>Metaleting Times<br>Mid-abb: 08:00-14:54<br>Mid-thod: 14:54-21:28              |
|  | 26   | 27   | 28                             | 29  | 30  |   |
|  |  | Impact Water Quality monitoring for<br>CE, CF, WSRI, WSR2, WSR3, WSR4, WSR4, WSR3,<br>WSR54, WSR57<br>Tistal Period;<br>Ebb Tiste: 11:00-15:00<br>Fload Tiste: 16:00-19:00<br><u>Monitoring Time;</u><br>Mid-ebb: 10:20-16:05<br>Mid-sload:16:05-22:7  |                                | Impact Water Quality monitoring for<br>CE, CF, WSRI, WSR2, WSR4, WSR4, WSR4, WSR3,<br>WSR5, WSR47<br>Thild Period<br>Ebb Tidle: 12:00-16:00<br>Flood Tidle: 08:00-11:00<br>Monitoring Time<br>Mid-ebb: 12:20-17:00<br>Mid-flood:05:00-12:00         |     |   |
| ks:<br>itoring Parameters: Dissolved oxygen, Temperature, pH, T<br>to safety concern of vessel transportation earlier than 0700. |  |  |                                |   |     |   |
| itized routing: Mid-Ebb: CE→WSR16→WSR37→WSR3   | water Quality Molitoring would start at 0800.<br>→WSR33→Remaining stations and Mid-Flood: CF→WSR1– | WSR2-WSR3-WSR4-Remaining stations  |                                |   |     |   |





Appendix E

## Event / Action Plan for Noise Exceedance



#### Table E1Event and Action Plan for Construction Noise Monitoring

| Event        | Action  |   |  |  |  |  |  |  |  |  |
|--------------|---|---|--|--|--|--|--|--|--|--|
|              | ET  | IEC E   | R  | Contractor   |  |  |  |  |  |  |
| Action Level | <ol> <li>Carry out investigation to identify the source<br/>and cause of the complaint/ exceedance(s)</li> <li>Notify IEC, ER, and Contractor and report the<br/>results of investigation to the Contractor, ER and<br/>the IEC</li> <li>Discuss with the Contractor and IEC for<br/>remedial measures required</li> <li>If the complaint is related to the Project, condu<br/>additional monitoring for checking mitigation<br/>effectiveness and report the findings and results<br/>to the IEC, ER and the Contractor</li> </ol>   | measures 3  | writing  | <ol> <li>Submit noise mitigation proposals, if required<br/>to the IEC and ER</li> <li>Implement noise mitigation proposals.</li> </ol>  |  |  |  |  |  |  |
| Limit Level  | <ol> <li>Carry out investigation to identify the source<br/>and cause of the exceedance</li> <li>Notify IEC, ER, Project Proponent, EPD and<br/>Contractor</li> <li>Repeat measurements to confirm findings</li> <li>Provide investigation report to IEC, ER, EPD an<br/>Contractor he causes of the exceedances</li> <li>If the exceedance is related to the Project, asses<br/>effectiveness by additional monitoring.</li> <li>Report the remedial action implemented and th<br/>additional monitoring results to IEC, EPD, ER and<br/>Contractor</li> <li>If exceedance stops, cease additional monitoring</li> </ol> | 4. Supervise the implementation of remedial 4<br>ss measures<br>he<br>d | writing<br>Require the Contractor to propose remedial<br>measures for the analysed noise problem<br>Ensure remedial measures are properly<br>implemented | <ol> <li>Take immediate action to avoid further<br/>exceedance</li> <li>Submit proposals for remedial actions to IEC<br/>and ER within 3 working days of notification</li> <li>Implement the agreed proposals</li> <li>Resubmit proposals if problem still not under<br/>control</li> <li>Stop the relevant activity of works as<br/>determined by the Project Proponent until the<br/>exceedance is abated</li> </ol> |  |  |  |  |  |  |

Notes : ET = Environmental Team, IEC = Independent Environmental Checker; ER = Engineering Representatives





## Appendix F

## Noise Monitoring Equipment Calibration Certificate (Blank)





(Blank)





Appendix G

## Event / Action Plan for Water Quality Exceedance



#### Table G1Event and Action Plan for Water Quality Monitoring

| Event   | Action   |   |  |   |
|---|--|---|--|---|
| Lven  | ET   | IEC   | Contractor(s)  | ER  |
| Action Level being<br>exceeded by one sampling<br>day                         | <ol> <li>Repeat <i>in situ</i> measurement on the next day of exceedance to<br/>confirm findings;</li> <li>Check monitoring data, plant, equipment and Contractor(s)'s<br/>working methods;</li> <li>Identify source(s) of impact and record in notification of<br/>exceedance;</li> <li>Inform IEC, Contractor(s) and ER.</li> </ol>  | <ol> <li>Check monitoring data submitted by ET and<br/>Contractor(s)'s working methods;</li> <li>Inform EPD.</li> </ol>   | <ol> <li>Confirm receipt of notification of exceedance in<br/>writing;</li> <li>Check plant and equipment and rectify unacceptable<br/>practice</li> </ol>   | <ol> <li>Confirm receipt of notification of exceedance in<br/>writing.</li> </ol>   |
| Action Level being<br>exceeded by two or more<br>consecutive sampling<br>days | <ol> <li>Repeat <i>in situ</i> measurement on the next day of exceedance to confirm findings;</li> <li>Check monitoring data, plant, equipment and Contractor(s)'s working methods;</li> <li>Identify source(s) of impact and record in notification of exceedance;</li> <li>Inform IEC, Contractor(s) and ER;</li> <li>Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented</li> </ol>                 | <ol> <li>Check monitoring data submitted by ET and<br/>Contractor(s)'s working methods;</li> <li>Inform EPD;</li> <li>Discuss with ET and Contractor(s) on additional<br/>mitigation measures and advise ER accordingly;</li> <li>Assess the effectiveness of the implemented<br/>mitigation measures.</li> </ol> | <ol> <li>Confirm receipt of notification of exceedance in<br/>writing;</li> <li>Check plant and equipment and rectify unacceptable<br/>practice;</li> <li>Consider changes of working methods;</li> <li>Discuss with ET and IEC on additional mitigation<br/>measures and propose them to ER within 3 working<br/>days;</li> <li>Implement the agreed mitigation measures.</li> </ol>  | <ol> <li>Confirm receipt of notification of exceedance in<br/>writing;</li> <li>Discuss with the IEC on the proposed additional<br/>mitigation measures and agree on the mitigation<br/>measures to be implemented.</li> <li>Ensure additional mitigation measures are properly<br/>implemented.</li> </ol>   |
| Limit Level being<br>exceeded by one sampling<br>day                          | <ol> <li>Repeat <i>in situ</i> measurement on the next day of exceedance to confirm findings;</li> <li>Check monitoring data, plant, equipment and Contractor(s)'s working methods;</li> <li>Identify source(s) of impact and record in notification of exceedance;</li> <li>Inform IEC, Contractor(s) and ER;</li> <li>Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented</li> </ol>                 | <ol> <li>Check monitoring data submitted by ET and<br/>Contractor(s)'s working methods;</li> <li>Inform EPD;</li> <li>Discuss with ET and Contractor(s) on additional<br/>mitigation measures and advise ER accordingly;</li> <li>Assess the effectiveness of the implemented<br/>mitigation measures.</li> </ol> | <ol> <li>Confirm receipt of notification of exceedance in<br/>writing;</li> <li>Check plant and equipment and rectify unacceptable<br/>practice;</li> <li>Critically review the need to change working<br/>methods;</li> <li>Discuss with ET and IEC on additional mitigation<br/>measures and propose them to ER within 3 working<br/>days;</li> <li>Implement the agreed mitigation measures.</li> </ol>   | <ol> <li>Confirm receipt of notification of exceedance in<br/>writing;</li> <li>Discuss with the IEC on the proposed additional<br/>mitigation measures and agree on the mitigation<br/>measures to be implemented.</li> <li>Ensure additional mitigation measures are properly<br/>implemented.</li> <li>Request Contractor(s) to critically review the<br/>working methods.</li> </ol>  |
| Limit Level being<br>exceeded by two or more<br>consecutive sampling<br>days  | <ol> <li>Repeat <i>in situ</i> measurement on the next day of exceedance to<br/>confirm findings;</li> <li>Check monitoring data, plant, equipment and Contractor(s)'s<br/>working methods;</li> <li>Identify source(s) of impact and record in notification of<br/>exceedance;</li> <li>Inform IEC, Contractor(s) and ER;</li> <li>Discuss with IEC and Contractor(s) on additional mitigation<br/>measures and ensure that they are implemented</li> </ol> | <ol> <li>Check monitoring data submitted by ET and<br/>Contractor(s)'s working methods;</li> <li>Inform EPD;</li> <li>Discuss with ET and Contractor(s) on additional<br/>mitigation measures and advise ER accordingly;</li> <li>Assess the effectiveness of the implemented<br/>mitigation measures.</li> </ol> | <ol> <li>Confirm receipt of notification of exceedance in<br/>writing;</li> <li>Check plant and equipment and rectify unacceptable<br/>practice;</li> <li>Critically review the need to change working<br/>methods;</li> <li>Discuss with ET and IEC on additional mitigation<br/>measures and propose them to ER within 3 working<br/>days;</li> <li>Implement the agreed mitigation measures.</li> <li>As directed by ER, slow down or stop all or part of the<br/>marine construction works/ production volume of the<br/>desalination plant until no exceedance of Limit Level.</li> </ol> | <ol> <li>Confirm receipt of notification of exceedance in<br/>writing;</li> <li>Discuss with the IEC on the proposed additional<br/>mitigation measures and agree on the mitigation<br/>measures to be implemented.</li> <li>Ensure additional mitigation measures are properly<br/>implemented.</li> <li>Request Contractor(s) to critically review the<br/>working methods;</li> <li>Consider and instruct, if necessary, the</li> <li>Constactor(s) to slow down or to stop all or part of<br/>the marine construction works/ production volume<br/>of the desalination plant until no exceedance of Limit<br/>Level.</li> </ol> |

Notes : ET = Environmental Team, IEC = Independent Environmental Checker; ER = Engineering Representatives The above actions should be taken within 1 working day after the exceedance is identified during operation phase.





# Appendix H

# Waste Flow Table



| V         |                             |   |                           |                             |  |             |                          |                   |                                |                   |             |
|-----------|-----------------------------|---|---------------------------|-----------------------------|--|-------------|--------------------------|-------------------|--------------------------------|-------------------|-------------|
|           |                             | Actual Quan                               | tities of Inert C&I       | O Materials Genera          | ted Monthly                                |             |                          | Actual Quantities | of C&D Wastes (                | Generated Monthly |             |
| Month     | Total Quantity<br>Generated | Hard Rock and<br>Large Broken<br>Concrete | Reused in the<br>Contract | Reused in other<br>Projects | Public Fill Imported Fill Metals packaging |             | Plastics<br>(see Note 3) | Chemical Waste    | Others, e.g.<br>general refuse |                   |             |
|           | (in '000kg)                 | (in '000kg)                               | (in '000kg)               | (in '000kg)                 | (in '000kg)                                | (in '000kg) | (in '000 kg)             | (in '000kg)       | (in '000kg)                    | (in '000kg)       | (in '000kg) |
| Jan       | 233.850                     | 0.000                                     | 0.000                     | 0.000                       | 233.850                                    | 0.000       | 0.000                    | 0.069             | 0.005                          | 0.000             | 109.020     |
| Feb       | 175.850                     | 0.000                                     | 0.000                     | 0.000                       | 175.850                                    | 0.000       | 0.000                    | 0.000             | 0.000                          | 0.296             | 293.110     |
| Mar       | 68.790                      | 0.000                                     | 0.000                     | 0.000                       | 68.790                                     | 0.000       | 0.000                    | 0.000             | 0.000                          | 0.000             | 54.140      |
| Apr       | 29.050                      | 0.000                                     | 0.000                     | 0.000                       | 29.050                                     | 0.000       | 0.001                    | 0.165             | 0.004                          | 0.000             | 113.780     |
| May       | 6.300                       | 0.000                                     | 0.000                     | 0.000                       | 6.300                                      | 0.000       | 0.000                    | 0.000             | 0.000                          | 0.000             | 139.130     |
| Jun       | 80.960                      | 0.000                                     | 0.000                     | 0.000                       | 80.960                                     | 0.000       | 0.000                    | 0.124             | 0.004                          | 0.000             | 271.000     |
| Sub-total | 594.800                     | 0.000                                     | 0.000                     | 0.000                       | 594.800                                    | 0.000       | 0.001                    | 0.357             | 0.013                          | 0.296             | 980.180     |
| Jul       | 2794.730                    | 0.000                                     | 0.000                     | 0.000                       | 2794.730                                   | 0.000       | 0.000                    | 0.000             | 0.000                          | 0.000             | 252.740     |
| Aug       | 10429.730                   | 0.000                                     | 0.000                     | 0.000                       | 10429.730                                  | 0.000       | 0.000                    | 0.170             | 0.090                          | 0.000             | 240.470     |
| Sep       | 13842.840                   | 0.000                                     | 0.000                     | 0.000                       | 13842.840                                  | 0.000       | 0.000                    | 0.170             | 0.090                          | 0.000             | 196.910     |
| Oct       |                             |   |                           |                             |  |             |                          |                   |                                |                   |             |
| Nov       |                             |   |                           |                             |  |             |                          |                   |                                |                   |             |
| Dec       |                             |   |                           |                             |  |             |                          |                   |                                |                   |             |
| Total     | 27662.100                   | 0.000                                     | 0.000                     | 0.000                       | 27662.100                                  | 0.000       | 0.001                    | 0.697             | 0.193                          | 0.296             | 1670.300    |

## Monthly Summary Waste Flow Table for <u>2022</u> (year)

Notes:

(1) The performance targets are given in Section 1.69 of Specification B

(2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.

(3) Plastics refer to plastic bottles/containers, plastic sheets/ foam from packaging material





# Appendix I

# Site Inspection Proforma





#### WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

| Inspection Date:     | 6/9/2022   | Inspected by: | ET: Jacky Leury SO: Raymond Kole WSD: |
|----------------------|------------|---------------|---------------------------------------|
| Weather<br>Condition | Sunny      | Overcast      | Drizzle Rain Storm Hazy               |
| Temperature          | 70.4°C     | Humidity      | High Moderate Low                     |
| Wind                 | Calm Light | Breeze        | Strong                                |

| Item<br>No.         | EIA ref. |  | N/A       | Yes       | No | Photo/Remarks |
|---------------------|----------|--|-----------|-----------|----|---------------|
| <b>0.00</b><br>0.01 |          | General<br>Is the current Environmental Permit displayed conspicuously at all vehicle site<br>entrances/exits for public's information at any time?  |           |           |    |               |
| 0.02                |          | Is ET Leader's log-book kept readily available for inspections?  |           |           |    |               |
| <b>1.00</b><br>1.01 | S4.8.1   | Construction Dust<br>Are dusty materials, such as excavated materials, building debris and construction<br>materials, and exposed earth surface properly covered to prevent dust emission? |           | V         |    |               |
| 1.02                | S4.8.1   | Are screenings, enclosures, water spraying, or vacuum cleaning devices provided to dusty construction works for dust suppression?  |           |           |    |               |
| 1.03                | S4.8.1   | Are fumes or smoke emitting plants or construction activities shielded by a screen?  | Ń         |           |    |               |
| 1.04                | S4.8.1   | Are wheel-washing facilities with high-pressure water jets provided at all site exits?   |           |           |    |               |
| 1.05                | S4.8.1   | Is wheel-washing provided to all vehicles leaving the site?  |           | V         |    |               |
| 1.06                | S4.8.1   | Are road section near the site exit free from dusty material?  |           | V         |    |               |
| 1.07                | S4.8.1   | Are all main haul roads inside the site paved or sprayed with water to minimize dust emission during vehicle movement?   |           |           |    |               |
| 1.08                | S4.8.1   | Are water spraying provided immediately prior to any loading or transfer of dusty materials?   |           |           |    |               |
| 1.09                | S4.8.1   | Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?  |           |           |    |               |
| 1.10                | S4.8.1   | Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of boulders, poles, pillars sprayed with water to maintain the entire surface wet?                      | $\square$ |           |    |               |
| 1.11                | S4.8.1   | Is exposed earth properly treated within six months after the last construction activity on site?  | M         |           |    |               |
| 1.12                | S4.8.1   | Does the operation of plants on site free form dark smoke emission?  |           | $\square$ |    |               |
| 1.13                | \$4.8.1  | Are vehicles travelling at speed not exceeding 15km/hr within the site?  |           |           |    | (             |
| 1.14                | S4.8.1   | Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?   | Ø         |           |    |               |





| <b></b>     | EIA ref. | Lino. 15/WSD/17 Design, Dund and Operate First Stage of   |              |              | 2000 |               |
|-------------|----------|---|--------------|--------------|------|---------------|
| ltem<br>No. | EIA rei. |   | N/A          | Yes          | No   | Photo/Remarks |
| 1.15        | S4.8.1   | Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?                | Ń            |              |      |               |
| 1.16        | S4.8.1   | Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public? |              |              |      |               |
| 1.17        | S4.8.1   | Is open burning prohibited?   |              |              |      |               |
| 2.00        |          | Construction Noise (Airborne)   |              |              |      |               |
| 2.01        | S5.7     | Are quiet plants adopted on site?   |              | V            |      |               |
| 2.02        | S5.7     | Are the PMEs operating on site well-maintained to minimize the generation of excessive noise?                 |              | V            |      |               |
| 2.03        | S5.7     | Are plants throttled down or turned off when not in use?  |              | $\checkmark$ |      |               |
| 2.04        | S5.7     | Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?                 |              |              |      |               |
| 2.05        | S5.7     | Are moveable barriers provided to screen NSRs from plant or noisy operations?                                 |              |              |      |               |
| 2.06        | S5.7     | Are silencers, mufflers and enclosures provided to plants?  | $\checkmark$ |              |      |               |
| 2.07        | S5.7     | Are the hoods, cover panels and inspection hatches of PMEs closed during operation?                           |              |              |      |               |
| 2.08        | S5.7     | Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?   | $\square$    |              |      |               |
| 2.09        | S5.7     | Are noisy operation properly scheduled to minimize exposure and cumulative                                    |              |              |      |               |
|             |          | impacts to nearby sensitive receivers?  |              | $\checkmark$ |      |               |
| 2.10        | S5.7     | Are valid noise emission label(s) affixed to all hand-held breakers operating on site?                        | $\square$    |              |      |               |
| 2.11        | S5.7     | Are valid noise emission label(s) affixed to all air compressors operating on site?                           |              |              |      |               |
| 2.12        | S5.7     | Are all construction noise permit(s) applied for percussive piling work?                                      |              |              |      |               |
| 2.13        | \$5.7    | Are construction noise permit(s) applied for general construction works during                                |              | T            |      |               |
|             |          | restricted hours?   |              |              |      |               |
| 2.14        | S5.7     | Are valid construction noise permit(s) displayed at all vehicular exits?                                      |              |              |      | -             |
| 3.00        |          | Water Quality   |              | ET 1         |      |               |
| 3.01        | S6.9     | Is effluent discharge license obtained for wastewater discharge from site?                                    |              |              |      | -             |
|             | S6.9     | Is effluent discharged according to the effluent discharge license?   |              |              |      |               |
| 3.03        | S6.9     | Is wastewater discharge from site properly treated prior to discharge?  |              |              |      |               |
| 3.04        | S6.9     | Are perimeter channels provided to intercept storm runoff from outside the site?                              | $\square$    |              |      |               |
| 3.05        | S6.9     | Are sand/silt removal facilities such as sand/silt traps and sediment basins provided                         |              |              |      |               |
|             |          | to remove sand/silt particles from runoff?  |              |              |      |               |





#### Contract no. 13/WSD/17 Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant EIA ref. Item N/A Yes No Photo/Remarks No 3.06 S6.9 Is surface runoff diverted to sedimentation facilities? 3.07 S6.9 Is the drainage system properly maintained? Reminder 3 3.08 56 9 Are construction works carefully programmed to minimize soil excavation works during rainy seasons? 3.09 S6.9 Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil erosion? 3.10 S6.9 Are temporary access roads protected by crushed gravel? 3.11 S6.9 Are exposed slope surface properly protected? 3.12 S6.9 Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation? 3.13 S6.9 Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction? 3.14 S6.9 Is runoff from wheel-washing facilities avoided? 3.15 S6.9 Is oil leakage or spillage prevented? Reminder ?? 3.16 S6.9 Are there any measures to prevent the release of oil and grease into the storm drainage system? 3.17 S6.9 Are the oil interceptors/ grease traps properly maintained? 3.18 S6.9 Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams? 3.19 S6.9 Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank? 3.20 S6.9 Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains? 3.21 S6.9 Are sufficient chemical toilets provided on site to handle sewage from construction work force? 3.22 S6.9 Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the licensed contractors? 3.23 S6.9 Is concrete washing water properly collected and treated prior to discharge? 3.24 S6.9 Is suitable type of silt curtains deployed during dredging to reduce the elevation of suspended solids to nearby sensitive receivers? 3.25 S6.9 Is closed grab dredger used to reduce the potential leakage of sediments? 3.26 S6.9 Is closed grab dredger of 3 to 6 m<sup>3</sup> used for dredging at seawater intake? 3.27 \$6.9 Is specific work staff assigned the responsibility for monitoring the number of grab dredged per hour? Is number of cycle limited to 20-21 grab per hour for 3m<sup>3</sup> closed grab, 10-11 grab per hour for 6m3 closed grab?





| Contract no. 13/WSD/17 Design, Build and Operate First Stage of Tso | eung Kwan O Desalination Plant |
|---|--------------------------------|
|   |                                |

| Item        | EIA ref. |   | N/A Yes No Photo/Remarks |
|-------------|----------|---|--------------------------|
| No.<br>3.28 | \$6.0    | Is the grab operated in slow and controlled manner such that the impact to seabed   |                          |
| 5.20        | 30.9     | by the grab when being lowered could be minimized? Is the operator ensured the grab be properly closed before lifting the grab?   |                          |
| 3.29        | S6.9     | Is the maximum allowed dredging rate at the seawater intake limited to 750 m3/day while the maximum allowed dredging rate at the submarine outfall is 3,500 m3/day?   |                          |
| 3.30        | S6.9     | Is dredged marine sediment disposed of in a gazetted marine disposal area in accordance with marine dumping permit conditions of the Dumping at Sea Ordinance (DASO)?   |                          |
| 3.31        | S6.9     | Are disposal vessels fitted with tight bottom seals in order to prevent leakage of material during transport?   |                          |
| 3.32        | S6.9     | Are barges filled to a level which ensures that material does not spill over during transport to the disposal site and that adequate freeboard is maintained to ensure that the decks are not washed by wave action?  |                          |
| 3.33        | S6.9     | Are excess materials cleaned from decks and exposed fittings before the vessel is moved from the dredging area after dredging?  |                          |
| 3.34        | S6.9     | Are the contractor(s) confirmed that the works cause no visible foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the dredging site?  |                          |
| 3.35        | S6.9     | When the dredged material has been unloaded at the disposal areas, is any material accumulated on the deck or other exposed parts of the vessel removed and placed in the hold or a hopper?   |                          |
| 3.36        | S6.9     | Is dredger maintained adequate clearance between vessels and the seabed at all<br>states of the tide and reduce operations speed to ensure that excessive turbidity is<br>not generated by turbulence from vessel movement or propeller wash?   |                          |
| 3.37        | \$6.9    | Is the contractor shall regularly inspect the silt curtains and check that they are<br>moored and marked to avoid danger to marine traffic? Is regular inspection on the<br>integrity of the silt curtain carried out by the contractor and any damage to the silt<br>curtain shall be repaired by the contractor promptly? |                          |
| 3.38        | S6.9     | Are all vessels have a clean ballast system?  |                          |
| 3.39        | S6.9     | Are all vessels well maintained and inspected before use to limit any potential discharges to the marine environment?   |                          |
| 3.40        | S6.9     | Is any discharge of sewage/grey wastewater? Is wastewater from potentially contaminated area on working vessels should be minimized and collected?  |                          |
| 3.41        | S6.9     | Is any soil waste disposed overboard?   |                          |
| 4.00        |          | Waste Management  |                          |
| 4.01        | S8.5     | Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?   |                          |
| 4.02        | S8.5     | Is a recording system implemented to record the amount of wastes generated, recycled and disposed of?   |                          |
| 4.03        | S8.5     | Is the Contractor registered as a chemical waste producer?  |                          |





| tem  | EIA ref.          | ct no. 13/WSD/17 Design, Build and Operate First Stage of [  | N/A          | Yes          | No        | Photo/Remarks |
|------|-------------------|--|--------------|--------------|-----------|---------------|
| No.  |                   |  |              |              |           |               |
| 4.04 | S8.5              | Is chemical waste separated from other waste and collected by a licensed chemical waste collector?   | $\square$    |              |           |               |
| 4.05 | S8.5              | Are trip tickets for chemical waste disposal available for inspection?   | V            |              |           |               |
| 4.06 | S8.5              | Is drip tray provided for chemical storage?  | $\checkmark$ |              |           |               |
| 4.07 | S8.5              | Are all containers for chemical waste properly labelled?   |              | $\checkmark$ |           |               |
| 4.08 | \$8.5             | Is chemical waste storage area used solely for storage of chemical waste and properly labelled?  |              |              | $\square$ | Observation(  |
| 4.09 | S8.5              | Are incompatible chemical wastes stored in different areas?  |              |              |           |               |
| 4.10 | S8.5              | Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?   |              | $\square$    |           |               |
| 4.11 | S8.5              | Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide? |              | $\checkmark$ |           |               |
| 4.12 | S8.5              | Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?  |              |              |           |               |
| 4.13 | S8.5              | Are sufficient general refuse disposal/collection points provided on site?   |              | $\square$    |           |               |
| 4.14 | S8.5              | Is general refuse disposed of properly and regularly?  |              | $\square$    |           | Reminder      |
| 4.15 | S8.5              | Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?   |              |              |           |               |
| 4.16 | S8.5              | Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?  |              | V            |           |               |
| 4.17 | S8.5              | Are C&D wastes sorted on site?   |              | $\checkmark$ |           |               |
| 4.18 | S8.5              | Are C&D waste disposed of properly?  |              |              |           |               |
| 4.19 |                   | Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?  | $\square$    |              |           |               |
| 4.20 | S8.5              | Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?  | $\square$    |              |           |               |
| 4.21 | S8.5              | Are the construction materials stored properly to minimize the potential for damage or contamination?  |              |              |           |               |
| 4.22 | S8.5              | Is a dumping license obtained to deliver public fill to public filling areas?  |              | $\square$    |           |               |
| .00  | S11.10            | Landscape and Visual   | 1            |              |           |               |
| .01  | & 11.11           | Are Is site hoarding provided?   | $\square$    |              |           |               |
| 5.02 | S11.10 &<br>11.11 | Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?   |              | Z            |           | 4             |
| 5.03 | S11.10 &<br>11.11 | Is construction light oriented away from the sensitive receivers?  |              |              |           |               |





|              |                   | t no. 15/ (15D/17 Design, Dund and Operate Trist Stage of I  | beung itt |              |    |               |
|--------------|-------------------|--|-----------|--------------|----|---------------|
| Item<br>No.  | EIA ref.          |  | N/A       | Yes          | No | Photo/Remarks |
|              | S11.10<br>& 11.11 | Is grass hydroseeding provided to slopes as soon as the completion of works?   |           |              |    |               |
|              | S11.10 &<br>11.11 | Are damages to trees outside site boundary due construction works avoided?   |           |              |    |               |
|              | S11.10 &<br>11.11 | Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?   | $\square$ |              |    |               |
|              | S11.10 &<br>11.11 | Are the retained and transplanted tree(s) properly protected and in good conditions?   |           | $\checkmark$ |    |               |
| 5.08         | S11.10 &<br>11.11 | Are surgery works carried out for damaged trees?   | $\square$ |              |    |               |
| 6.00<br>6.01 | S9.7              | Ecology<br>Is site runoff properly treated to prevent any silly runoff?  |           | $\searrow$   |    |               |
| 6.02         | S9.7              | Are silt trap installed and well-maintained?   |           |              |    |               |
| 6.03         | S9.7              | Are stockpiles properly covered to avoid generating silty runoff?  |           |              |    |               |
| 6.04         | S9.7              | Are construction works restricted to works area which are clearly defined?   |           |              |    |               |
| 6.05         | S9.7              | For slope mitigation works within the Clear Water Bay Country Park, are tree felling and damages to trees, the exact locations of the flexible barrier foundation plates, soil nails and rock dowels adjusted during detailed design, and a setback distance from existing trees is recommended to be maintained as far as practical?                          |           |              |    |               |
| 6.06         | S9.7              | Are pruning of tree canopies along the alignment of the flexible barriers limited to a minimum?  | $\square$ |              |    |               |
| 6.07         | S9.7              | Is the alignment of flexible barriers optimized to preserve all species of conservation interest and minimize the impact to the existing vegetation as far as practicable? Are the alignment of flexible barriers positioned at minimum 1.5 m in a radius away from these individuals?   | Ø         |              |    |               |
| 6.08         | S9.7              | Is temporary fencing installed to fence off the concerned species either in groups of individually within the works area and in the close proximity to prevent from being damaged and disturbed during construction? Is a sign identifying the site attached to the fence and flagging tape shall be attached to the individuals to visualize their locations? |           | V            |    |               |
| 6.09         | S9.7              | Is a specification for fencing and demarcating individuals of Marsdenai lachnostoma (or<br>other flora species of conservation interest, if found) adjacent to the proposed alignment<br>of the flexible barriers prepared to protect the species?   |           | V            |    | 3             |
| 6.10         | S9.7              | Is any induction training provided to all site personnel in order to brief them on this flora of conservation interest including the locations and their importance?   |           | $\checkmark$ |    |               |
| 6.11         | S9.7              | Is the resident site supervisory staff closely monitor the conditions of concerned individuals during construction of flexible barriers in the close proximity?  |           | $\checkmark$ |    |               |
| 6.12         | S9.7              | Are fences erected along the boundary of the works area before the commencement of works to prevent vehicle movements and encroachment of personnel onto adjacent areas?   |           |              |    |               |
| 6.13         | S9.7              | Is regular check of the work site boundaries performed to ensure that they are not<br>breached and that damage does not occur to surrounding areas?  |           |              |    |               |
| 6.14         | S9.7              | Is any damage and disturbance avoided, particularly those caused by filling and illegal dumping, to the surrounding habitats through proper management of waste disposal?  |           | $\checkmark$ |    |               |





| Item | EIA ref. |  | N/A | Yes          | No | Photo/Remarks |
|------|----------|--|-----|--------------|----|---------------|
| No.  |          |  |     |              |    |               |
| 6.15 | S9.7     | Are temporarily affected areas reinstated, particularly the habitats of plantation and shrubland-grassland immediately after completion of construction works, through on-site tree/shrub planting?                |     | Ø            |    |               |
| 6.16 | S9.7     | Are affected habitats within the Clear Water Bay Country Bay reinstated by hydro-<br>seeding and planting of climbers and native shrub seedlings where practical upon<br>completion of the slope mitigation works? | V   |              |    |               |
| 7.00 |          | Landfill Gas Hazard  |     | - 140        |    |               |
| 7.01 | S12.7    | Are the safety procedures implemented to minimise the risks of fires and explosions, asphyxiation of works and toxicity effects during all works?  |     | V            |    |               |
| 7.02 | S12.7    | Are the gas detection equipment and precautions being used during trenching and excavation as well as creation of confined spaces?   |     | V            |    |               |
| 7.03 | S12.7    | Are the training with regard to the awareness of potential hazards of working in confined spaces provided from the Contractor to the workers?  |     | $\checkmark$ |    |               |
| 7.04 | S12.7    | Are the safety officers trained with regard to landfill gas and leachate related hazards and presented on the site throughout the works undertaken below grade?  |     | V            |    |               |
| 7.05 | S12.7    | Are the all personnel working on site and all visitor made aware of the possibility of ignition of gas, the possible presence of contaminated water and the need to avoid physical contact?                        |     | $\checkmark$ |    |               |
| 7.06 | S12.7    | Is the monitoring of landfill gas being undertaken in all excavations, manholes, chambers and any confined spaces?   |     | $\checkmark$ |    |               |
| 7.07 | S12.7    | Are the monitoring frequency and areas being specified by the safety officers or<br>appropriately qualified person? Are the all measurements being recorded and<br>documented?                                     |     | $\square$    |    |               |
| 7.08 | S12.7    | Is the drilling proceeded with adequate care and precautions against the potential hazards?  |     | V            |    |               |
| 7.09 | S12.7    | Is the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?  |     | $\checkmark$ |    |               |
|      | S12.7    | Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?   |     |              |    |               |
|      |          | Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?                  |     | $\checkmark$ |    |               |
| 7.12 |          | Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?   |     | $\checkmark$ |    |               |
| 8.00 |          | Overall  |     |              |    |               |
| 8.01 |          | Is the EM&A properly implemented in general?   |     |              |    |               |





Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection: Observetion 1.) Chemicals found near the Acti DAFF Building shell be stored propenty. Reminders pard on the ground near Acti DAFF Bailding 1.) General refuses shall be stored in a garbage Pilent) container, although it is noted that garbage 2) Power generator dell be stored on a dip tray or protected area Fring before transportation. 3.) Silt curtain at the open channel outlet shall be repair as soon as possible. Signatures: Supervising Officer's IEC's WSD's ET Contractor's Representative Representative Representative Representative Representative (Name: (Name: (Name: (Name: Titta (Name: ) lou



Member of the Aurecon Group



# Contract no. 13/WSD/17 Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant

### WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

| Inspection Date: 13 | 19/2022  |       | Inspected by: | ET: Ja         |            | so: Raym   | anal Koll | WSD:                                     |
|---------------------|----------|-------|---------------|----------------|------------|------------|-----------|--|
| Inspection Time:    | 30-16-00 | 7     |               | Contractor: 11 | tony Isang | IEC: Jours | Kul       | -1 · · · · · · · · · · · · · · · · · · · |
| Weather             | /        |       |               |                |            |            |           |  |
| Condition           | Sunny    | Fine  | Overcast      | Drizzle        | Rain       | Storm      | Hazy      |  |
| Temperature         | 33 C     |       | Humidity      | High           | Moderate   | Low        |           |  |
| Wind                | Calm     | Light | Breeze        | Strong         |            |            |           |  |

| Item<br>No.         | EIA ref. |   | N/A          | Yes          | No | Photo/Remarks |
|---------------------|----------|---|--------------|--------------|----|---------------|
| 0.00<br>0.01        |          | General<br>Is the current Environmental Permit displayed conspicuously at all vehicle site<br>entrances/exits for public's information at any time?   |              | V            |    |               |
| 0.02                |          | Is ET Leader's log-book kept readily available for inspections?   |              | $\checkmark$ |    |               |
| <b>1.00</b><br>1.01 | S4.8.1   | <b>Construction Dust</b><br>Are dusty materials, such as excavated materials, building debris and construction<br>materials, and exposed earth surface properly covered to prevent dust emission? |              |              |    |               |
|                     | S4.8.1   | Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty construction works for dust suppression?  |              | $\square$    |    |               |
|                     | S4.8.1   | Are fumes or smoke emitting plants or construction activities shielded by a screen?   | $\square$    |              |    |               |
| 1.04                | S4.8.1   | Are wheel-washing facilities with high-pressure water jets provided at all site exits?  |              | $\checkmark$ |    |               |
|                     |          | Is wheel-washing provided to all vehicles leaving the site?   |              | $\square$    |    |               |
|                     | S4.8.1   | Are road section near the site exit free from dusty material?   |              | $\bigvee$    |    |               |
| 1.07                | S4.8.1   | Are all main haul roads inside the site paved or sprayed with water to minimize dust emission during vehicle movement?  |              | $\checkmark$ |    |               |
| 1.08                | S4.8.1   | Are water spraying provided immediately prior to any loading or transfer of dusty materials?  | $\mathbf{V}$ |              |    |               |
|                     | S4.8.1   | Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?   |              | $\square$    |    |               |
| 1.10                | S4.8.1   | Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of boulders, poles, pillars sprayed with water to maintain the entire surface wet?                             |              |              |    |               |
|                     | S4.8.1   | Is exposed earth properly treated within six months after the last construction activity on site?   | 5/           |              |    |               |
|                     |          | Does the operation of plants on site free form dark smoke emission?   |              | $\checkmark$ |    |               |
|                     | S4.8.1   | Are vehicles travelling at speed not exceeding 15km/hr within the site?   |              | $\checkmark$ |    |               |
| 1.14                |          | Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?  |              |              |    |               |
|                     |          |   |              |              |    |               |





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| Item | EIA ref. |  | N/A          | Yes          | No               | Photo/Remarks         |
|------|----------|--|--------------|--------------|------------------|-----------------------|
| No.  |          |  |              |              |                  |                       |
| 1.15 | S4.8.1   | Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?                                   |              |              |                  |                       |
| 1.16 | S4.8.1   | Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?                    | $\checkmark$ |              |                  |                       |
| 1.17 | S4.8.1   | Is open burning prohibited?  |              | $\square$    |                  |                       |
| 2.00 |          | Construction Noise (Airborne)  |              |              |                  |                       |
| 2.01 | S5.7     | Are quiet plants adopted on site?  |              | $\checkmark$ |                  |                       |
| 2.02 | S5.7     | Are the PMEs operating on site well-maintained to minimize the generation of excessive noise?                                    |              | $\checkmark$ |                  |                       |
| 2.03 | S5.7     | Are plants throttled down or turned off when not in use?   |              | $\checkmark$ |                  |                       |
| 2.04 | S5.7     | Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?                                    |              |              |                  |                       |
| 2.05 | S5.7     | Are moveable barriers provided to screen NSRs from plant or noisy operations?  | $\checkmark$ |              |                  |                       |
| 2.06 | S5.7     | Are silencers, mufflers and enclosures provided to plants?   |              |              |                  |                       |
| 2.07 | S5.7     | Are the hoods, cover panels and inspection hatches of PMEs closed during operation?  |              |              |                  |                       |
| 2.08 | S5.7     | Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?                      |              |              |                  |                       |
| 2.09 | S5.7     | Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?                | $\checkmark$ |              |                  | <del>.</del>          |
| 2.10 | S5.7     | Are valid noise emission label(s) affixed to all hand-held breakers operating on site?   |              |              |                  |                       |
| 2.11 | \$5.7    | Are valid noise emission label(s) affixed to all air compressors operating on site?  |              |              |                  |                       |
| 2.12 | S5.7     | Are all construction noise permit(s) applied for percussive piling work?   | $\square$    | A A          |                  | 2.80) - 1.80)<br>- 0) |
| 2.13 | S5.7     | Are construction noise permit(s) applied for general construction works during restricted hours?                                 |              | $\checkmark$ |                  |                       |
| 2.14 | S5.7     | Are valid construction noise permit(s) displayed at all vehicular exits?   |              | $\checkmark$ |                  |                       |
| 3.00 |          | Water Quality  |              |              |                  |                       |
| 3.01 | S6.9     | Is effluent discharge license obtained for wastewater discharge from site?   |              | $\checkmark$ |                  |                       |
| 3.02 | S6.9     | Is effluent discharged according to the effluent discharge license?  |              |              |                  |                       |
| 3.03 | S6.9     | Is wastewater discharge from site properly treated prior to discharge?   |              | $\checkmark$ |                  |                       |
| 3.04 | S6.9     | Are perimeter channels provided to intercept storm runoff from outside the site?   | $\checkmark$ |              |                  |                       |
| 3.05 | S6.9     | Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff? |              |              |                  |                       |
|      |          |  |              |              | 107 - 2000 - 11K |                       |





|             | Juitin   | ct no. 13/WSD/17 Design, Build and Operate First Stage of '  | Iseung K     | wan U                                 | Desaiin | ation Plant   |
|-------------|----------|--|--------------|---------------------------------------|---------|---------------|
| Item<br>No. | EIA ref. |  | N/A          | Yes                                   | No      | Photo/Remarks |
| 3.06        | S6.9     | Is surface runoff diverted to sedimentation facilities?  |              |                                       |         |               |
| 3.07        | S6.9     | Is the drainage system properly maintained?  |              | $\overline{\boldsymbol{\mathcal{A}}}$ | $\Box$  |               |
| 3.08        | S6.9     | Are construction works carefully programmed to minimize soil excavation works during rainy seasons?  |              |                                       |         |               |
| 3.09        | S6.9     | Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil erosion?  |              |                                       |         |               |
| 3.10        | S6.9     | Are temporary access roads protected by crushed gravel?  |              | $\overline{}$                         |         |               |
| 3.11        | S6.9     | Are exposed slope surface properly protected?  | $\mathbf{V}$ |                                       |         | J             |
| 3.12        | S6.9     | Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation?  | 1/           |                                       |         |               |
| 3.13        | S6.9     | Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction?  | $\checkmark$ |                                       |         |               |
| 3.14        | S6.9     | Is runoff from wheel-washing facilities avoided?   |              |                                       |         |               |
| 3.15        | S6.9     | Is oil leakage or spillage prevented?  |              | x                                     |         | obs 1         |
| 3.16        | S6.9     | Are there any measures to prevent the release of oil and grease into the storm drainage system?  |              |                                       |         |               |
| 3.17        | S6.9     | Are the oil interceptors/ grease traps properly maintained?  | $\mathbf{r}$ |                                       |         |               |
| 3.18        |          | Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams?   |              | $\checkmark$                          |         |               |
| 3.19        |          | Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank?   |              | $\checkmark$                          |         |               |
| 3.20        |          | Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?   |              |                                       |         |               |
| 3.21        |          | Are sufficient chemical toilets provided on site to handle sewage from construction work force?  |              |                                       |         |               |
| 3.22        |          | Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the licensed contractors?  |              | $\checkmark$                          |         |               |
| 3.23        | S6.9     | Is concrete washing water properly collected and treated prior to discharge?   | $\square$    |                                       |         |               |
| 3.24        |          | Is suitable type of silt curtains deployed during dredging to reduce the elevation of suspended solids to nearby sensitive receivers?  |              | $\checkmark$                          |         |               |
| 3.25        | \$6.9    | Is closed grab dredger used to reduce the potential leakage of sediments?  |              |                                       |         |               |
| 3.26        | S6.9     | Is closed grab dredger of 3 to 6 m <sup>3</sup> used for dredging at seawater intake?  | $\checkmark$ |                                       |         | -             |
| 3.27        |          | Is specific work staff assigned the responsibility for monitoring the number of grab dredged per hour? Is number of cycle limited to 20-21 grab per hour for 3m <sup>3</sup> closed grab, 10-11 grab per hour for 6m3 closed grab? | $\square$    |                                       |         |               |





| Item | EIA ref. | tino. 10/1100/11/ Design, Dund und Operater 1 not Singe of 2                               | N/A          | Yes          | No | Photo/Remarks |
|------|----------|--|--------------|--------------|----|---------------|
| No.  |          |  |              |              |    |               |
|      | S6.9     | Is the grab operated in slow and controlled manner such that the impact to seabed          |              |              |    |               |
| 0.20 |          | by the grab when being lowered could be minimized? Is the operator ensured the             |              | r1           |    |               |
|      |          | grab be properly closed before lifting the grab?   | $\checkmark$ |              |    |               |
|      |          |  |              |              |    |               |
| 3.29 | \$6.9    | Is the maximum allowed dredging rate at the seawater intake limited to 750 m3/day          |              |              |    |               |
|      |          | while the maximum allowed dredging rate at the submarine outfall is 3,500                  |              |              |    |               |
|      |          | m3/day?  | 1-/          |              |    |               |
| 3.30 | S6.9     | Is dredged marine sediment disposed of in a gazetted marine disposal area in               |              |              |    |               |
|      |          | accordance with marine dumping permit conditions of the Dumping at Sea                     | $\Box$       |              |    |               |
|      |          | Ordinance (DASO)?  | $\checkmark$ |              |    |               |
| 3.31 | S6.9     | Are disposal vessels fitted with tight bottom seals in order to prevent leakage of         |              |              |    |               |
|      |          | material during transport?   | $\checkmark$ |              |    |               |
| 3.32 | S6.9     | Are barges filled to a level which ensures that material does not spill over during        |              |              |    |               |
|      |          | transport to the disposal site and that adequate freeboard is maintained to ensure         |              |              |    |               |
|      |          | that the decks are not washed by wave action?  | V            |              |    |               |
| 3.33 |          | Are excess materials cleaned from decks and exposed fittings before the vessel is          |              |              |    |               |
| 5.55 |          |  |              |              |    |               |
|      |          | moved from the dredging area after dredging?   |              |              |    |               |
| 3.34 | S6.9     | Are the contractor(s) confirmed that the works cause no visible foam, oil, grease,         |              |              |    |               |
|      |          | litter or other objectionable matter to be present in the water within and adjacent        |              |              |    |               |
|      |          | to the dredging site?  |              |              |    | -             |
| 3.35 | S6.9     | When the dredged material has been unloaded at the disposal areas, is any material         |              |              |    |               |
|      |          | accumulated on the deck or other exposed parts of the vessel removed and placed in         |              |              |    |               |
|      |          | the hold or a hopper?  | $\mathbf{V}$ |              |    |               |
| 3.36 | S6.9     | Is dredger maintained adequate clearance between vessels and the seabed at all             |              | 110.0        |    |               |
|      |          | states of the tide and reduce operations speed to ensure that excessive turbidity is       |              |              |    |               |
|      |          | not generated by turbulence from vessel movement or propeller wash?                        | $\checkmark$ |              |    |               |
| 3.37 | S6.9     | Is the contractor shall regularly inspect the silt curtains and check that they are        |              |              |    |               |
|      |          | moored and marked to avoid danger to marine traffic? Is regular inspection on the          |              |              |    |               |
|      |          | integrity of the silt curtain carried out by the contractor and any damage to the silt     |              |              |    |               |
|      |          | curtain shall be repaired by the contractor promptly?                                      |              |              |    |               |
| 3.38 | 0(0      |  |              | ц <u>,</u>   |    |               |
| 3.38 | 56.9     | Are all vessels have a clean ballast system?   |              |              |    |               |
| 2.00 | 66.0     | Annual monode well explorated and immediate herein and the formation to the internet state |              |              |    |               |
| 3.39 | S6.9     | Are all vessels well maintained and inspected before use to limit any potential            |              |              |    |               |
|      |          | discharges to the marine environment?  |              |              |    | e             |
| 3.40 | S6.9     | Is any discharge of sewage/grey wastewater? Is wastewater from potentially                 |              |              |    |               |
|      |          | contaminated area on working vessels should be minimized and collected?                    |              |              |    | <b>2</b> 11   |
| 3.41 | S6.9     | Is any soil waste disposed overboard?  |              |              |    |               |
|      |          |  | V            |              |    | -             |
| 4.00 |          | Waste Management   |              |              |    |               |
| 4.01 | S8.5     | Is a trip-ticket system implemented to monitor the disposal of C&D and solid               |              |              |    |               |
|      |          | wastes at public filling facilities and landfills?   |              |              |    |               |
| 4.02 | \$8.5    | Is a recording system implemented to record the amount of wastes generated,                |              |              |    | С             |
| 7.02 | 0.5      | recycled and disposed of?  |              | $\bigvee$    |    |               |
| 4.02 | 00 5     |  |              |              |    | -             |
| 4.03 | 58.5     | Is the Contractor registered as a chemical waste producer?                                 |              | $\checkmark$ |    |               |
|      |          |  |              |              |    |               |
| 1    | 1        |  |              |              |    |               |





| Item | EIA ref.          |  | N/A                     | Yes          | No        | Photo/Remarks |
|------|-------------------|--|-------------------------|--------------|-----------|---------------|
| No.  |                   |  |                         |              |           |               |
| 4.04 | S8.5              | Is chemical waste separated from other waste and collected by a licensed chemical waste collector?   | $\bigvee$               |              |           |               |
| 4.05 | S8.5              | Are trip tickets for chemical waste disposal available for inspection?   | $\checkmark$            |              |           |               |
| 4.06 | S8.5              | Is chemical waste reused and recycled on site as far as practicable?   | $\checkmark$            |              |           |               |
| 4.07 | S8.5              | Are all containers for chemical waste properly labelled?   |                         | $\checkmark$ |           |               |
| 4.08 | S8.5              | Is chemical waste storage area used solely for storage of chemical waste and properly labelled?  | $\checkmark$            |              |           |               |
| 4.09 | S8.5              | Are incompatible chemical wastes stored in different areas?  | $\overline{\mathbf{V}}$ | $\Box$       | $\square$ |               |
| 4.10 | S8.5              | Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?   | t                       | $\checkmark$ |           |               |
| 4.11 | S8.5              | Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide? |                         | 1-Z          |           |               |
| 4.12 | S8.5              | Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?  |                         |              |           |               |
| 4.13 | S8.5              | Are sufficient general refuse disposal/collection points provided on site?   |                         |              |           |               |
| 4.14 | S8.5              | Is general refuse disposed of properly and regularly?  |                         |              |           | Reminda 1     |
| 4.15 | S8.5              | Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?   |                         |              |           |               |
| 4.16 | S8.5              | Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?  |                         |              |           |               |
| 4.17 | S8.5              | Are C&D wastes sorted on site?   |                         | $\checkmark$ |           |               |
| 4.18 | S8.5              | Are C&D waste disposed of properly?  |                         | $\checkmark$ |           |               |
| 4.19 | S8.5              | Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?  |                         |              |           |               |
| 4.20 | S8.5              | Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?  | $\checkmark$            |              |           |               |
| 4.21 | S8.5              | Are the construction materials stored properly to minimize the potential for damage or contamination?  |                         | $\square$    |           |               |
| 4.22 | S8.5              | Is a dumping license obtained to deliver public fill to public filling areas?  |                         | $\checkmark$ |           |               |
| 5.00 | S11.10            | Landscape and Visual   |                         |              |           |               |
| 5.01 | & 11.11           | Are Is site hoarding provided?   | $\checkmark$            |              |           |               |
| 5.02 | S11.10 &<br>11.11 | Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?   |                         | $\square$    |           |               |
|      | S11.10 &<br>11.11 | Is construction light oriented away from the sensitive receivers?  | $\square$               |              |           |               |
|      |                   |  |                         |              |           |               |





| Item         | EIA ref.          |  | N/A                     | Yes          | No | Photo/Remarks |
|--------------|-------------------|--|-------------------------|--------------|----|---------------|
| No.          |                   |  |                         |              |    |               |
| 5.04         | S11.10<br>& 11.11 | Is grass hydroseeding provided to slopes as soon as the completion of works?   | Ţ                       |              |    | -             |
| 5.05         | S11.10 &<br>11.11 | Are damages to trees outside site boundary due construction works avoided?   |                         | $\checkmark$ |    |               |
| 5.06         | S11.10 &<br>11.11 | Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?   | $\checkmark$            |              |    |               |
| 5.07         | S11.10 &<br>11.11 | Are the retained and transplanted tree(s) properly protected and in good conditions?   |                         | $\langle /$  |    |               |
| 5.08         | S11.10 &<br>11.11 | Are surgery works carried out for damaged trees?   | $\checkmark$            |              |    |               |
| 6.00<br>6.01 | S9.7              | Ecology<br>Is site runoff properly treated to prevent any silly runoff?  |                         | $\checkmark$ |    |               |
| 6.02         | S9.7              | Are silt trap installed and well-maintained?   |                         |              |    |               |
| 6.03         | S9.7              | Are stockpiles properly covered to avoid generating silty runoff?  | $\overline{\mathbf{A}}$ |              |    |               |
| 6.04         | S9.7              | Are construction works restricted to works area which are clearly defined?   |                         |              |    | -             |
| 6.05         |                   | For slope mitigation works within the Clear Water Bay Country Park, are tree felling and damages to trees, the exact locations of the flexible barrier foundation plates, soil nails and rock dowels adjusted during detailed design, and a setback distance from existing trees is recommended to be maintained as far as practical?                          |                         |              |    |               |
| 6.06         | S9.7              | Are pruning of tree canopies along the alignment of the flexible barriers limited to a minimum?  |                         |              |    |               |
| 6.07         |                   | Is the alignment of flexible barriers optimized to preserve all species of conservation interest and minimize the impact to the existing vegetation as far as practicable? Are the alignment of flexible barriers positioned at minimum 1.5 m in a radius away from these individuals?   |                         |              |    |               |
|              |                   | Is temporary fencing installed to fence off the concerned species either in groups of individually within the works area and in the close proximity to prevent from being damaged and disturbed during construction? Is a sign identifying the site attached to the fence and flagging tape shall be attached to the individuals to visualize their locations? |                         |              |    |               |
| 6.09         | S9.7              | Is a specification for fencing and demarcating individuals of Marsdenai lachnostoma (or other flora species of conservation interest, if found) adjacent to the proposed alignment of the flexible barriers prepared to protect the species?   |                         |              |    |               |
| 6.10         | S9.7              | Is any induction training provided to all site personnel in order to brief them on this flora of conservation interest including the locations and their importance?   |                         | $\checkmark$ |    |               |
| 6.11         |                   | Is the resident site supervisory staff closely monitor the conditions of concerned individuals during construction of flexible barriers in the close proximity?  |                         | $\checkmark$ |    |               |
| 6.12         |                   | Are fences erected along the boundary of the works area before the commencement of works to prevent vehicle movements and encroachment of personnel onto adjacent areas?   |                         | $\checkmark$ |    |               |
| 6.13         |                   | Is regular check of the work site boundaries performed to ensure that they are not<br>breached and that damage does not occur to surrounding areas?  |                         |              |    |               |
| 6.14         | S9.7              | Is any damage and disturbance avoided, particularly those caused by filling and illegal dumping, to the surrounding habitats through proper management of waste disposal?  |                         | $\checkmark$ |    |               |







| Item | EIA ref. |  | N/A       | Yes          | No     | Photo/Remarks |
|------|----------|--|-----------|--------------|--------|---------------|
| No.  |          |  |           |              |        |               |
| 6.15 | S9.7     | Are temporarily affected areas reinstated, particularly the habitats of plantation and shrubland-grassland immediately after completion of construction works, through on-site tree/shrub planting?                |           |              |        |               |
| 6.16 | S9.7     | Are affected habitats within the Clear Water Bay Country Bay reinstated by hydro-<br>seeding and planting of climbers and native shrub seedlings where practical upon<br>completion of the slope mitigation works? |           |              |        |               |
| 7.00 |          | Landfill Gas Hazard  |           |              | ······ |               |
| 7.01 | S12.7    | Are the safety procedures implemented to minimise the risks of fires and explosions, asphyxiation of works and toxicity effects during all works?  |           | $\checkmark$ |        |               |
| 7.02 | S12.7    | Are the gas detection equipment and precautions being used during trenching and excavation as well as creation of confined spaces?   |           | $\checkmark$ |        |               |
| 7.03 | S12.7    | Are the training with regard to the awareness of potential hazards of working in confined spaces provided from the Contractor to the workers?  |           | $\checkmark$ |        |               |
| 7.04 | S12.7    | Are the safety officers trained with regard to landfill gas and leachate related hazards and presented on the site throughout the works undertaken below grade?  |           | •            |        |               |
| 7.05 | S12.7    | Are the all personnel working on site and all visitor made aware of the possibility of ignition of gas, the possible presence of contaminated water and the need to avoid physical contact?                        |           |              |        |               |
| 7.06 | S12.7    | Is the monitoring of landfill gas being undertaken in all excavations, manholes,<br>chambers and any confined spaces?  |           |              |        |               |
| 7.07 | S12.7    | Are the monitoring frequency and areas being specified by the safety officers or appropriately qualified person? Are the all measurements being recorded and documented?   |           | $\square$    |        |               |
| 7.08 | S12.7    | Is the drilling proceeded with adequate care and precautions against the potential hazards?  |           | $\checkmark$ |        |               |
|      | S12.7    | Is the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?  |           | $\checkmark$ |        |               |
|      | S12.7    | Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?   | $\square$ |              |        |               |
| 7.11 | S12.7    | Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?                  |           |              |        |               |
| 7.12 | S12.7    | Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?   |           | $\square$    |        |               |
| 8.00 |          | Overall  |           |              |        |               |
| 8.01 |          | Is the EM&A properly implemented in general?   |           | $\checkmark$ |        |               |





Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection: Observation 1.) Chemical Frontainen Bund near the R.O. Building dell be store on a dip tray on propen chemical storage ) General a etwees near the open channel outflow and the pumping station area shell to removed. Harontractors are resident to the site Q. Rominde Signatures: IEC's ET Supervising Officer's WSD's Contractor's Representative Representative Representative Representative Representative (Name: ) (Name: TitTa ) (Name (Name: (Name: ) Im S 1 AN len





Member of the Aurecon Group

#### Contract no. 13/WSD/17 Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant

#### WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

| Inspection Date: _20 | 19 (202    | 2     | Inspected by: | ET: Jorg<br>Contractor: <u>Jorg</u> | Ky Leina<br>my Tsans | SO: Ray,<br>IEC: Davi | nard Kok | WSD: |
|----------------------|------------|-------|---------------|-------------------------------------|----------------------|-----------------------|----------|------|
| Inspection Time: 142 | 30 - 15:30 |       |               |                                     | 2 0                  |                       |          |      |
| Weather              |            |       |               |                                     |                      |                       |          |      |
| Condition            | Sunny      | Fine  | Overcast      | Drizzle                             | Rain                 | Storm                 | Hazy     |      |
| Temperature          | 31 C       |       | Humidity      | High                                | Moderate             | Low                   |          |      |
| Wind                 | Calm       | Light | Breeze        | Strong                              |                      |                       |          |      |

| Item<br>No.         | EIA ref. |  | N/A          | Yes          | No | Photo/Remarks |
|---------------------|----------|--|--------------|--------------|----|---------------|
| <b>0.00</b><br>0.01 |          | General<br>Is the current Environmental Permit displayed conspicuously at all vehicle site<br>entrances/exits for public's information at any time?  |              | $\checkmark$ |    |               |
| 0.02                |          | Is ET Leader's log-book kept readily available for inspections?  |              | $\checkmark$ |    |               |
| <b>1.00</b><br>1.01 | S4.8.1   | Construction Dust<br>Are dusty materials, such as excavated materials, building debris and construction<br>materials, and exposed earth surface properly covered to prevent dust emission? |              | $\checkmark$ |    |               |
| 1.02                | S4.8.1   | Are screenings, enclosures, water spraying or vacuum cleaning devices provided to<br>dusty construction works for dust suppression?  |              | $\checkmark$ |    |               |
| 1.03                | S4.8.1   | Are fumes or smoke emitting plants or construction activities shielded by a screen?  | $\bigvee$    |              |    |               |
| 1.04                | S4.8.1   | Are wheel-washing facilities with high-pressure water jets provided at all site exits?   |              | P            |    |               |
| 1.05                | S4.8.1   | Is wheel-washing provided to all vehicles leaving the site?  |              | $\mathbf{V}$ |    |               |
| 1.06                | S4.8.1   | Are road section near the site exit free from dusty material?  |              | $\checkmark$ |    |               |
| 1.07                | S4.8.1   | Are all main haul roads inside the site paved or sprayed with water to minimize dust emission during vehicle movement?   |              | $\checkmark$ |    | -             |
| 1.08                | S4.8.1   | Are water spraying provided immediately prior to any loading or transfer of dusty materials?   |              |              |    |               |
| 1.09                | S4.8.1   | Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?  |              | $\checkmark$ |    | €*            |
| 1.10                | S4.8.1   | Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of boulders, poles, pillars sprayed with water to maintain the entire surface wet?                      | $\checkmark$ |              |    |               |
| 1.11                | S4.8.1   | Is exposed earth properly treated within six months after the last construction activity on site?  |              |              |    |               |
| 1.12                | S4.8.1   | Does the operation of plants on site free form dark smoke emission?  |              | $\checkmark$ |    |               |
| 1.13                | S4.8.1   | Are vehicles travelling at speed not exceeding 15km/hr within the site?  |              | $\checkmark$ |    |               |
| 1.14                | S4.8.1   | Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?   |              |              |    |               |
|                     |          |  |              |              |    |               |





| Item | EIA ref. |   | N/A          | Yes          | No | Photo/Remarks  |
|------|----------|---|--------------|--------------|----|--|
| No.  |          |   |              |              |    |  |
| 1.15 | S4.8.1   | Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?                    | $\checkmark$ |              |    |  |
| 1.16 | S4.8.1   | Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?     | $\checkmark$ |              |    |  |
| 1.17 | S4.8.1   | Is open burning prohibited?   |              | $\bigvee$    |    |  |
| 2.00 |          | Construction Noise (Airborne)   |              |              |    |  |
| 2.01 | S5.7     | Are quiet plants adopted on site?   |              |              |    |  |
| 2.02 | S5.7     | Are the PMEs operating on site well-maintained to minimize the generation of excessive noise?                     |              | $\checkmark$ |    |  |
|      | S5.7     | Are plants throttled down or turned off when not in use?  |              | $\checkmark$ |    |  |
|      | S5.7     | Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?                     | $\checkmark$ |              |    |  |
| 2.05 |          | Are moveable barriers provided to screen NSRs from plant or noisy operations?                                     | $\checkmark$ |              |    |  |
|      | S5.7     | Are silencers, mufflers and enclosures provided to plants?  | $\checkmark$ |              |    |  |
| 2.07 | S5.7     | Are the hoods, cover panels and inspection hatches of PMEs closed during operation?                               | V.           |              |    | -  |
| 2.08 | S5.7     | Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?       | $\checkmark$ |              |    |  |
| 2.09 | S5.7     | Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers? | V            |              |    |  |
| 2.10 | S5.7     | Are valid noise emission label(s) affixed to all hand-held breakers operating on site?                            | $\checkmark$ |              |    |  |
| 2.11 | S5.7     | Are valid noise emission label(s) affixed to all air compressors operating on site?                               | V            |              |    |  |
| 2.12 | S5.7     | Are all construction noise permit(s) applied for percussive piling work?  | $\checkmark$ |              |    |  |
| 2.13 | S5.7     | Are construction noise permit(s) applied for general construction works during restricted hours?                  |              | $\checkmark$ |    |  |
| 2.14 | S5.7     | Are valid construction noise permit(s) displayed at all vehicular exits?  |              | $\bigvee$    |    |  |
| 3.00 |          | Water Quality   |              |              |    |  |
|      | S6.9     | Is effluent discharge license obtained for wastewater discharge from site?  |              | $\checkmark$ |    |  |
| 3.02 |          | Is effluent discharged according to the effluent discharge license?   |              | $\checkmark$ |    | 2 <del></del>  |
| 3.03 | S6.9     | Is wastewater discharge from site properly treated prior to discharge?  |              | V            |    |  |
| 3.04 | S6.9     | Are perimeter channels provided to intercept storm runoff from outside the site?                                  | $\checkmark$ |              |    |  |
| 3.05 | S6.9     | Are sand/silt removal facilities such as sand/silt traps and sediment basins provided                             |              | 1            |    | and a second |
|      |          | to remove sand/silt particles from runoff?  |              |              |    |  |





| Item | EIA ref.            |  | N/A                     | Yes          | No        | Photo/Remarks   |
|------|---------------------|--|-------------------------|--------------|-----------|---|
| No.  |                     |  |                         |              |           |   |
|      | S6.9                | Is surface runoff diverted to sedimentation facilities?  |                         | 1            |           |   |
| 3.07 | S6.9                | Is the drainage system properly maintained?  |                         |              |           |   |
| 3.08 | S6.9                | Are construction works carefully programmed to minimize soil excavation works  |                         | . /          |           |   |
| 0.00 | 06.0                | during rainy seasons?  |                         |              |           |   |
| 3.09 | S6.9                | Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil erosion?  |                         | $\checkmark$ |           | ÷.  |
| 3.10 | S6.9                | Are temporary access roads protected by crushed gravel?  |                         |              |           |   |
| 3.11 |                     | Are exposed slope surface properly protected?  | $\checkmark$            |              |           | <i>a</i>  |
| 3.12 | S6.9                | Is trench excavation avoided in the wet season as far as practicable, or if necessary,   |                         | $\Box$       |           |   |
|      |                     | backfilled in short sections after excavation?   | ЦШ                      |              |           |   |
| 3.13 | S6.9                | Are open stockpiles of construction materials on site covered by tarpaulin or similar  |                         | $\square$    | $\square$ |   |
| 3.14 | S6.9                | fabric during construction?  |                         |              |           |   |
| 3.14 |                     | Is runoff from wheel-washing facilities avoided?   |                         |              |           | -   |
| 3.15 | 50.9                | Is oil leakage or spillage prevented?  |                         |              |           | Remindler 1   |
| 3.16 | S6.9                | Are there any measures to prevent the release of oil and grease into the storm   |                         |              |           |   |
| 0.1= |                     | drainage system?   |                         |              |           |   |
| 3.17 |                     | Are the oil interceptors/ grease traps properly maintained?  | $\checkmark$            |              |           |   |
| 3.18 |                     | Are debris and rubbish generated on site collected, handled and disposed of  |                         |              | $\square$ |   |
| 2.40 |                     | properly to avoid them entering the streams?   |                         |              |           |   |
| 3.19 |                     | Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest |                         |              |           |   |
|      |                     | tank?  |                         |              |           |   |
| 3.20 | S6.9                | Are tanks, containers, storage area bunded and the locations locked as far as  |                         |              |           |   |
| 0.01 | _                   | possible from the sensitive watercourse and stormwater drains?   |                         |              |           | -   |
| 3.21 |                     | Are sufficient chemical toilets provided on site to handle sewage from construction work force?  |                         | $\square$    |           |   |
| 3.22 | S6.9                | Are sewage disposal and toilet maintenance of the portable chemical toilets  |                         |              |           |   |
|      |                     | provided by the licensed contractors?  |                         | $\checkmark$ |           |   |
| 3.23 | S6.9                | Is concrete washing water properly collected and treated prior to discharge?   | $\checkmark$            |              |           |   |
| 3.24 | S6.9                | Is suitable type of silt curtains deployed during dredging to reduce the elevation of  |                         |              |           |   |
|      | and a second second | suspended solids to nearby sensitive receivers?  |                         |              |           |   |
| 3.25 | S6.9                | Is closed grab dredger used to reduce the potential leakage of sediments?  | $\overline{\mathbf{V}}$ |              |           |   |
| 3.26 | S6.9                | Is closed grab dredger of 3 to 6 m <sup>3</sup> used for dredging at seawater intake?  | $\checkmark$            |              |           |   |
| 3.27 | S6.9                | Is specific work staff assigned the responsibility for monitoring the number of grab   |                         |              |           |   |
|      |                     | dredged per hour? Is number of cycle limited to 20-21 grab per hour for 3m <sup>3</sup> closed grab, 10-11 grab per hour for 6m3 closed grab?                        | $\nabla$                | $\square$    |           |   |
|      |                     | Brao, 10-11 grao per nour for onis croscu grad:  |                         |              |           | the second se |





| Item | EIA ref. |  | N/A    | Yes                 | No | Photo/Remarks |
|------|----------|--|--------|---------------------|----|---------------|
| No.  |          |  |        |                     |    |               |
| 3.28 | S6.9     | Is the grab operated in slow and controlled manner such that the impact to seabed      |        |                     |    |               |
|      |          | by the grab when being lowered could be minimized? Is the operator ensured the         | . /    |                     |    |               |
|      |          | grab be properly closed before lifting the grab?                                       | V      |                     |    |               |
| 3.29 | S6.9     | Is the maximum allowed dredging rate at the seawater intake limited to 750 m3/day      |        |                     |    |               |
|      |          | while the maximum allowed dredging rate at the submarine outfall is 3,500              |        |                     |    |               |
| 1    |          | m3/day?  | 1      |                     |    |               |
| 3.30 | S6.9     | Is dredged marine sediment disposed of in a gazetted marine disposal area in           |        |                     |    |               |
|      |          | accordance with marine dumping permit conditions of the Dumping at Sea                 | . /    |                     |    |               |
|      |          | Ordinance (DASO)?  |        |                     |    |               |
| 3.31 | S6.9     | Are disposal vessels fitted with tight bottom seals in order to prevent leakage of     |        |                     |    |               |
|      |          | material during transport?   | V      |                     |    |               |
| 3.32 | S6.9     | Are barges filled to a level which ensures that material does not spill over during    |        |                     |    |               |
|      |          | transport to the disposal site and that adequate freeboard is maintained to ensure     |        |                     |    |               |
|      |          | that the decks are not washed by wave action?  | $\vee$ |                     |    |               |
| 3.33 | S6.9     | Are excess materials cleaned from decks and exposed fittings before the vessel is      |        |                     |    |               |
|      |          | moved from the dredging area after dredging?   | M      |                     |    | <b>.</b>      |
| 3.34 | S6.9     | Are the contractor(s) confirmed that the works cause no visible foam, oil, grease,     |        |                     |    |               |
|      |          | litter or other objectionable matter to be present in the water within and adjacent    |        |                     |    |               |
|      |          | to the dredging site?  |        |                     |    |               |
| 3.35 | S6.9     | When the dredged material has been unloaded at the disposal areas, is any material     |        |                     |    |               |
|      |          | accumulated on the deck or other exposed parts of the vessel removed and placed in     |        |                     |    |               |
|      |          | the hold or a hopper?  |        |                     |    |               |
| 3.36 | S6.9     | Is dredger maintained adequate clearance between vessels and the seabed at all         |        |                     |    |               |
|      |          | states of the tide and reduce operations speed to ensure that excessive turbidity is   |        |                     |    |               |
|      |          | not generated by turbulence from vessel movement or propeller wash?                    |        |                     |    |               |
| 3.37 | S6.9     | Is the contractor shall regularly inspect the silt curtains and check that they are    |        |                     |    |               |
|      |          | moored and marked to avoid danger to marine traffic? Is regular inspection on the      |        |                     |    |               |
|      |          | integrity of the silt curtain carried out by the contractor and any damage to the silt |        |                     |    |               |
|      |          | curtain shall be repaired by the contractor promptly?                                  |        | $\overline{\nabla}$ |    | <u></u>       |
| 3.38 | S6.9     | Are all vessels have a clean ballast system?   |        |                     |    |               |
|      | -        |  |        |                     |    |               |
| 3.39 | S6.9     | Are all vessels well maintained and inspected before use to limit any potential        |        |                     |    |               |
|      | 01.0     | discharges to the marine environment?  |        |                     |    |               |
| 3.40 | S6.9     | Is any discharge of sewage/grey wastewater? Is wastewater from potentially             |        |                     |    |               |
|      |          | contaminated area on working vessels should be minimized and collected?                |        |                     |    |               |
| 3.41 | S6.9     | Is any soil waste disposed overboard?  |        |                     |    |               |
| 4.00 |          | Waste Management   |        |                     |    |               |
| 4.01 | S8.5     | Is a trip-ticket system implemented to monitor the disposal of C&D and solid           |        |                     |    |               |
|      |          | wastes at public filling facilities and landfills?                                     |        |                     |    |               |
| 4.02 | S8.5     | Is a recording system implemented to record the amount of wastes generated,            |        |                     |    |               |
|      |          | recycled and disposed of?  |        |                     |    | <b></b>       |
| 4.03 | S8.5     |  |        |                     |    |               |
|      |          | Is the Contractor registered as a chemical waste producer?                             |        | $\bigvee$           |    |               |
|      |          |  |        |                     |    |               |





| Item | EIA ref.          | bende in in the state of the st | N/A                     | Yes                     | No  | Photo/Remarks |
|------|-------------------|--|-------------------------|-------------------------|-----|---------------|
| No.  | Linter            |  | IN/A                    | ICS                     | INO | Photo/Remarks |
| 4.04 | S8.5              | Is chemical waste separated from other waste and collected by a licensed chemical waste collector?   |                         |                         |     |               |
| 4.05 | S8.5              | Are trip tickets for chemical waste disposal available for inspection?   | $\overline{\mathbf{V}}$ |                         |     |               |
| 4.06 | S8.5              | Is chemical waste reused and recycled on site as far as practicable?   | $\checkmark$            |                         |     |               |
| 4.07 | S8.5              | Are all containers for chemical waste properly labelled?   |                         | $\checkmark$            |     |               |
| 4.08 | S8.5              | Is chemical waste storage area used solely for storage of chemical waste and properly labelled?  | $\checkmark$            |                         |     |               |
| 4.09 | S8.5              | Are incompatible chemical wastes stored in different areas?  | $\checkmark$            |                         |     | 10            |
| 4.10 | S8.5              | Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?   |                         | $\checkmark$            |     |               |
| 4.11 | \$8.5             | Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?   |                         |                         |     |               |
| 4.12 |                   | Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?  |                         | V                       |     |               |
| 4.13 | S8.5              | Are sufficient general refuse disposal/collection points provided on site?   |                         | $\bigvee$               |     |               |
| 4.14 | \$8.5             | Is general refuse disposed of properly and regularly?  |                         | $\checkmark$            |     | Reminder )    |
| 4.15 |                   | Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?   |                         | $\overline{\checkmark}$ |     |               |
| 4.16 |                   | Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?  |                         | $\checkmark$            |     |               |
| 4.17 |                   | Are C&D wastes sorted on site?   |                         |                         |     |               |
| 4.18 | S8.5              | Are C&D waste disposed of properly?  |                         | $\overline{\checkmark}$ |     |               |
| 4.19 |                   | Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?  | $\checkmark$            |                         |     |               |
| 4.20 |                   | Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?  |                         |                         |     |               |
| 4.21 |                   | Are the construction materials stored properly to minimize the potential for damage or contamination?  |                         | $\mathbf{\nabla}$       |     |               |
| 4.22 |                   | Is a dumping license obtained to deliver public fill to public filling areas?  |                         |                         |     |               |
| 5.00 | S11 10            | Landssons and Visual   |                         |                         |     |               |
|      |                   | Landscape and Visual<br>Are Is site hoarding provided?   | $\square$               |                         |     |               |
| 5.02 | S11.10 &<br>11.11 | Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?   |                         | $\checkmark$            |     |               |
| 5.03 | S11.10 &<br>11.11 | Is construction light oriented away from the sensitive receivers?  | $\square$               |                         |     |               |
|      |                   |  |                         |                         |     |               |





| ltem | EIA ref.          |  | N/A                     | Yes          | No | Photo/Remarks |
|------|-------------------|--|-------------------------|--------------|----|---------------|
| No.  |                   |  |                         |              |    |               |
| 5.04 | S11.10<br>& 11.11 | Is grass hydroseeding provided to slopes as soon as the completion of works?   | $\bigvee$               |              |    |               |
| 5.05 | S11.10 &<br>11.11 | Are damages to trees outside site boundary due construction works avoided?   |                         | $\checkmark$ |    |               |
| 5.06 |                   | Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?   |                         |              |    |               |
| 5.07 | S11.10 &<br>11.11 | Are the retained and transplanted tree(s) properly protected and in good conditions?   |                         |              |    |               |
| 5.08 | S11.10 &<br>11.11 | Are surgery works carried out for damaged trees?   | $\checkmark$            |              |    |               |
| 6.01 |                   | Ecology<br>Is site runoff properly treated to prevent any silly runoff?  |                         | v            |    |               |
| 6.02 | S9.7              | Are silt trap installed and well-maintained?   | $\checkmark$            |              |    |               |
| 6.03 | S9.7              | Are stockpiles properly covered to avoid generating silty runoff?  | $\overline{\checkmark}$ | ,            |    |               |
| 6.04 | S9.7              | Are construction works restricted to works area which are clearly defined?   |                         | $\square$    |    | -             |
| 6.05 | S9.7              | For slope mitigation works within the Clear Water Bay Country Park, are tree felling and damages to trees, the exact locations of the flexible barrier foundation plates, soil nails and rock dowels adjusted during detailed design, and a setback distance from existing trees is recommended to be maintained as far as practical?                          | $\square$               |              |    |               |
| 6.06 | S9.7              | Are pruning of tree canopies along the alignment of the flexible barriers limited to a minimum?  | $\checkmark$            |              |    |               |
| 6.07 | S9.7              | Is the alignment of flexible barriers optimized to preserve all species of conservation interest and minimize the impact to the existing vegetation as far as practicable? Are the alignment of flexible barriers positioned at minimum 1.5 m in a radius away from these individuals?   |                         |              |    |               |
| 6.08 | S9.7              | Is temporary fencing installed to fence off the concerned species either in groups of individually within the works area and in the close proximity to prevent from being damaged and disturbed during construction? Is a sign identifying the site attached to the fence and flagging tape shall be attached to the individuals to visualize their locations? |                         |              |    |               |
| 6.09 | S9.7              | Is a specification for fencing and demarcating individuals of Marsdenai lachnostoma (or<br>other flora species of conservation interest, if found) adjacent to the proposed alignment<br>of the flexible barriers prepared to protect the species?   |                         | $\checkmark$ |    |               |
| 6.10 | S9.7              | Is any induction training provided to all site personnel in order to brief them on this flora of conservation interest including the locations and their importance?   |                         |              |    |               |
| 6.11 | S9.7              | Is the resident site supervisory staff closely monitor the conditions of concerned individuals during construction of flexible barriers in the close proximity?  |                         | $\checkmark$ |    |               |
| 6.12 | S9.7              | Are fences erected along the boundary of the works area before the commencement of works to prevent vehicle movements and encroachment of personnel onto adjacent areas?   |                         | $\checkmark$ |    |               |
| 6.13 | S9.7              | Is regular check of the work site boundaries performed to ensure that they are not<br>breached and that damage does not occur to surrounding areas?  |                         | V            |    |               |
| 6.14 | S9.7              | Is any damage and disturbance avoided, particularly those caused by filling and illegal dumping, to the surrounding habitats through proper management of waste disposal?  |                         | $\square$    |    |               |





# Contract no. 13/WSD/17 Design, Build and Operate First Stage of Tseu

| No.       NA       Yes       No       Photo/Remark         6.15       39.7.       Are temporarily affected areas reinstated, particularly the habitats of plantation and shrubhand-grassland immediately after completion of construction works, through on-site rec'shrub planting?       Image: Completion of the Sole mitigation works?         6.16       S9.7.       Are affected babitats within the Clear Water Bay Country Bay reinstated by hydro-completion of the slope mitigation works?       Image: Completion of the slope mitigation works?         7.00       Landfill Gas Hazard       Are the safety procedures implemented to minimise the risks of fires and explosions, asphyxiation of works and toxicity effects during all works?       Image: Completion of the slope mitigation works?         0.02       S12.7       Are the gas detection equipment and precations being used during trenching and covervation as well as creation of confined spaces?       Image: Completion of the slope mitigation works?         0.03       S12.7       Are the safety officers trained with regard to landfill gas and leachter related hazards and presented on the slope mitig used water and the need to avoid physical contact?       Image: Completion of the slope mitig and voking on slipe mitig and contamities water and the need to avoid physical contact?         0.6       S12.7       for the all personnel contaminated water and the need to avoid physical contact?       Image: Completion of the slope mitig and precautions, manholes, shambers and any confined spaces?       Image: Completion of the commencement of the sloworks?       Image: Completion of th  | ltem | EIA ref  | g , s s s s s s s s s s s s s s s s s s  | Iseung       | Kwan (                  | J Desali  | nation Plant                          |
|--|------|----------|--|--------------|-------------------------|-----------|---------------------------------------|
| shrubbandgrassland immediately after completion of construction works, through on-site   | No.  |          |  | N/A          | Yes                     | No        | Photo/Remarks                         |
| 6.16 S9.7 Are affected habitats within the Clear Water Bay Country Bay reinstated by hydro-seeding and planting of elimbers and native shrub seedlings where practical upon completion of the slope mitigation works?   7.00 Landfill Gas Hazard   7.01 S12.7   Are the safety procedures implemented to minimise the risks of fires and explosions, asphyxiation of works and toxicity effects during all works?   7.02 S12.7   Are the safety procedures implemented to minimise the risks of fires and explosions, asphyxiation of works and toxicity effects during all works?   7.03 S12.7   Are the gas detection equipment and precautions being used during trenching, and excavation as well as creation of confined spaces?   7.04 Are the safety officers trained with regard to landfill gas and leachate related hazards and presented on the contractor to the works undertaken below grade?   7.04 S12.7   7.05 S12.7   Are the all personnel working on site and all visitor made aware of the possibility of gignition of gas, the possible presence of contaminated water and the need to avoid physical contact?   7 S12.7   7 Is the monitoring flequency and arcas being specified by the safety officers or appropriately qualified person? Are the all measurements being recorded and documented?   8 S12.7   8 S12.7   8 S12.7   10 S12.7   10 S12.7   11 S12.7   12 Are the all personnel working on site and all visitor made aware of the possibility of gignition of gas, the possible presence of contaminated water and the need to avoid p   | 6.1  | 5 S9.7   | Are temporarily affected areas reinstated, particularly the habitats of plantation and shrubland-grassland immediately after completion of a   |              |                         |           |                                       |
| seeding and planting of climbers and native shrub seedings where practical upon<br>completion of the slope mitigation, works?         7.00       Landfill Cas Hazard<br>xaphyxiation of works and toxicity effects during all works?         9.02       \$12.7       Are the safety procedures implemented to minimise the risks of fires and explosions,<br>asphyxiation of works and toxicity effects during all works?         9.02       \$12.7       Are the gas detection equipment and precautions being used during trenching and<br>excession of works and toxicity effects during all works?         0.03       \$12.7       Are the training with regard to the awareness of potential hazards of working in confined<br>spaces provided from the Contractor to the workers?         0.04       \$12.7       Are the all personnel working on site and all visitor made aware of the possibility of<br>ignition of gas, the possible presence of contaminated water and the need to avoid<br>physical contect?         0.6       \$12.7       Are the monitoring of landfill gas being undertaken in all excavations, manholes,<br>chambers and any confined spaces?         0.7       \$12.7       Are the monitoring frequency and areas being specified by the safety officers or<br>appropriately qualified person? Are the all measurements being recorded and<br>documented?         0.8       \$12.7       Is the drilling contractor prior to the commencement of the site works?         0.9       \$12.7       Is the drilling contractor prior to the commencement of the site works?         0.9       \$12.7       Is the drilling contractor prior to the comm  |      |          | ince/sitrub planting?  | Sec. 1. 18.  | V                       |           | No. 1 No.1                            |
| peculing and planting of climbers and native shrub seedlings where practical upon<br>completion of the slope mitigation works?       Image: Climbers and native shrub seedlings where practical upon<br>completion of the slope mitigation works?         7.00       Landfill Cas Hazard         7.01       S12.7       Are the safety procedures implemented to minimise the risks of fires and explosions,<br>asphyxiation of works and toxicity effects during all works?       Image: Climber State  | 6.16 | \$ \$9.7 | Are affected habitats within the Clear Water Bay Country Bay reinstated by hydro-  |              | 1                       | Q         | 196 <b>a</b> 12                       |
| 7.01       S12.7       Are the safety procedures implemented to minimise the risks of fires and explosions, aphyxiation of works and toxicity effects during all works?         7.02       S12.7       Are the gas detection equipment and precautions being used during trenching, and excavation as well as creation of confined spaces?       Image: Contract of Confined Spaces?         0.03       S12.7       Are the training with regard to the awareness of potential hazards of working in confined spaces provided from the Contractor to the workers?       Image: Contract of Contractor to the workers?         0.04       S12.7       Are the all personnel working on site and all visitor made aware of the possibility of ignition of gas, the possible presence of contaminated water and the need to avoid physical contact?       Image: Contact of Contact of Contact Spaces?         0.05       S12.7       Are the monitoring of landfill gas being undertaken in all excavations, manholes, chambers and any confined spaces?       Image: Contact of Contact Space of Contaminated water and the need to avoid physical contact?         0.6       S12.7       Are the monitoring of landfill gas being specified by the safety officers or appropriately qualified person? Are the all measurements being recorded and documented?       Image: Contact of Contact of Contact Core or prior to the commencement of the site works?         0       S12.7       Is the method statement covering all normal and emergency procedures provided by the drilling contact prior to the commencement of the site works?       Image: Contact of Contact of the contact or prior to the commencement of the site works? <td></td> <td>N 10 1</td> <td>second and planting of climbers and native shrub seedlings where practical upon</td> <td><math>\square</math></td> <td></td> <td></td> <td>Sea Ph</td>   |      | N 10 1   | second and planting of climbers and native shrub seedlings where practical upon  | $\square$    |                         |           | Sea Ph                                |
| asphyxiation of works and toxicity effects during all works?         202       \$12.7       Are the gas detection equipment and precautions being used during trenching and excavation as well as creation of confined spaces?         0.03       \$12.7       Are the training with regard to the awareness of potential hazards of working in confined spaces provided from the Contractor to the worksrs?         0.04       \$12.7       Are the safety officers trained with regard to landfill gas and leachate related hazards and presented on the site throughout the works undertaken below grade?         0.05       \$12.7       Are the all personnel working on site and all visitor made aware of the possibility of ignition of gas, the possible presence of contaminated water and the need to avoid physical contact?         06       \$12.7       Is the monitoring of landfill gas being undertaken in all excavations, manholes, chambers and any confined spaces?         07       \$12.7       Are the all measurements being recorded and documented?         08       \$12.7       Are the monitoring frequency and areas being specified by the safety officers or appropriately qualified person? Are the all measurements being recorded and documented?         19       \$12.7       Is the method statement covering all normal and emergency procedures provided by the drilling proceeded with adequate care and precautions against the potential hazards?         19       \$12.7       Is the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?   | 7.00 |          | Landfill Gas Hazard  |              |                         |           |                                       |
| 102       S12.7       Are the gas detection equipment and precautions being used during trenching and excavation as well as creation of confined spaces?       Image: Contract of Confined Spaces?         104       S12.7       Are the training with regard to the avareness of potential hazards of working in confined spaces provided from the Contractor to the workers?       Image: Contract of Contract on Conten Contract on Contract on   | 7.01 | S12.7    | Are the safety procedures implemented to minimise the risks of fires and explosions, asphyxiation of works and toxicity effects during all works?  |              | $\square$               |           |                                       |
| 0.3       S12.7       Are the training with regard to the awareness of potential hazards of working in confined spaces provided from the Contractor to the workers?       Image: Contractor Conterenter Contractor Contender Contractor Contend                   | .02  | S12.7    | Are the gas detection equipment and precautions being used during transhing and  |              | - V                     | · · · ·   |                                       |
| spaces provided from the Contractor to the workers?         0.04       \$12.7       Are the safety officers trained with regard to landfill gas and leachate related hazards and presented on the site throughout the works undertaken below grade?       Image: Contact Contend contend Contact Contact Contact Contact Contact Co  | .03  | S12.7    | excavation as well as creation of confined spaces?   | 1 (F) (F)    | V                       |           | · · · · · · · · · · · · · · · · · · · |
| presented on the site throughout the works undertaken below grade?         05       \$12.7       Are the all personnel working on site and all visitor made aware of the possibility of ignition of gas, the possible presence of contaminated water and the need to avoid physical contact?         06       \$12.7       Is the monitoring of landfill gas being undertaken in all excavations, manholes, chambers and any confined spaces?         07       \$12.7       Are the monitoring frequency and areas being specified by the safety officers or appropriately qualified person? Are the all measurements being recorded and documented?         18       \$12.7       Is the drilling proceeded with adequate care and precautions against the potential hazards?         9       \$12.7       Is the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?         0       \$12.7       Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?         1       \$12.7       Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?         1       \$12.7       Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?   |      |          | spaces provided from the Contractor to the workers?  |              | $\overline{\mathbf{N}}$ |           |                                       |
| 05       S12.7       Are the all personnel working on site and all visitor made aware of the possibility of ignition of gas, the possible presence of contaminated water and the need to avoid physical contact?         06       S12.7       Is the monitoring of landfill gas being undertaken in all excavations, manholes, chambers and any confined spaces?       Image: Content of the monitoring frequency and areas being specified by the safety officers or appropriately qualified person? Are the all measurements being recorded and documented?         07       S12.7       Is the drilling proceeded with adequate care and precautions against the potential hazards?         9       S12.7       Is the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?         0       S12.7       Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?         1       S12.7       Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?  | .04  | 512.7    | Are the safety officers trained with regard to landfill gas and leachate related hazards and presented on the site throughout the works under the land to be the safety of |              |                         |           |                                       |
| Ignition of gas, the possible presence of contaminated water and the need to avoid physical contact?       Image: Contact of Contact of Contaminated Water and the need to avoid physical contact?         06       \$12.7       Is the monitoring of landfill gas being undertaken in all excavations, manholes, chambers and any confined spaces?       Image: Contact of Contac   | 05   | S12.7    | Are the all personnel working on site and all with   |              | V                       |           |                                       |
| physical contact?       Image: Contact?         06       S12.7       Is the monitoring of landfill gas being undertaken in all excavations, manholes, chambers and any confined spaces?       Image: Contact of the site works?         0       S12.7       Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?       Image: Contact of the contact of the contact of the contact of the site works?         0       S12.7       Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?       Image: S12.7         1       S12.7       Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?       Image: Contact of the contact or site posted in prominent places?  |      |          | ignition of gas, the possible presence of contaminated water of the possibility of   |              | /                       |           |                                       |
| 9       S12.7       Are the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?       Image: Contractor prior to the commencement of the site works?         0       S12.7       Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?       Image: Contractor prior to the state of the site works?         0       S12.7       Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?         S12.7       Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?  | 06   | 912.7    | physical contact?  |              | $\checkmark$            |           |                                       |
| 7       S12.7       Are the monitoring frequency and areas being specified by the safety officers or appropriately qualified person? Are the all measurements being recorded and documented?         8       S12.7       Is the drilling proceeded with adequate care and precautions against the potential hazards?         9       S12.7       Is the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?         0       S12.7       Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?         1       S12.7       Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?         5       S12.7       Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?   |      | 512.7    | is the monitoring of landfill gas being undertaken in all excavations, manholes,   |              |                         |           |                                       |
| appropriately qualified person? Are the all measurements being recorded and documented?       Image: Constraint of the second of t | 17   | 312.7    |  |              | $\checkmark$            |           |                                       |
| documented?       Is the drilling proceeded with adequate care and precautions against the potential hazards?         9       S12.7       Is the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?         0       S12.7       Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?         1       S12.7       Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?         5       S12.7       Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?         0       Overall       Overall  | ″ [  |          | are the monitoring frequency and areas being specified by the safety officers or   |              |                         |           |                                       |
| 9       S12.7       Is the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?       Image: Contractor prior to the commencement of the site works?         0       S12.7       Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?       Image: Contractor prior to the commencement of the site works?         1       S12.7       Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?       Image: Context and the manual provided by the steady of landfill gas and its possible presence on site posted in prominent places?         0       Overall       Overall       Image: Context and precurs of the steady reading and peak reading recorded at each manhole or utility pit?   |      |          | documented?  |              | $\checkmark$            |           |                                       |
| <ul> <li>9 S12.7 Is the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?</li> <li>0 S12.7 Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?</li> <li>1 S12.7 Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?</li> <li>1 S12.7 Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?</li> <li>1 O Overall</li> </ul>  | 8 S  | 12.7     | Is the drilling proceeded with adequate care and precautions against the potential   |              |                         |           |                                       |
| Image: Structure in the interference of the structure interference in the drilling contractor prior to the commencement of the site works?       Image: Structure interference interferenc | 0 0  | f        | nazards?   |              | $\checkmark$            | $\square$ |                                       |
| 0       S12.7       Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?       Image: Content of the second sec                   |      |          | s the method statement covering all normal and emergency procedures provided by  |              | /                       |           |                                       |
| section ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?       Image: Comparison of the section of the sectin of the section of the section of the section |      | 127      | ne drilling contractor prior to the commencement of the site works?  |              | $\nabla$                | $\square$ |                                       |
| S12.7       Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?         S12.7       Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?         O       Overall   |      |          | Are the below ground services entries being sealed to prevent gas entry? Are the   |              |                         |           |                                       |
| base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?         S12.7       Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?         O       Overall  |      | 27 1     | rified metal covers being used for below grade cable trenches?   | $\checkmark$ |                         | 5.        |                                       |
| at each manhole or utility pit?         S12.7       Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?         O       Overall   |      | 1        | s each manhole or utility pit monitored with two measurements (at mid-depth and  |              |                         | <u> </u>  |                                       |
| posted in prominent places? O Overall  |      | a        | ase) for minimum of 10 minutes? Is the steady reading and peak reading recorded t each manhole or utility pit?   |              | $\checkmark$            |           |                                       |
| posted in prominent places?       O       Overall  | S1   |          | re the warning signs of the hazards of landfill gas and its possible presence on site  |              |                         | 11 21-    | a said                                |
|  |      | po       | osted in prominent places?   |              | $\checkmark$            | $\square$ |                                       |
| Is the EM&A properly implemented in general?   |      |          |  |              | /                       |           |                                       |
|  |      | Is       | the EM&A properly implemented in general?  |              | $\checkmark$            |           |                                       |





Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection: Activation and the second active of the Activate 1.) Chemicale containers found arean the Activate a proper and R.O. Building shall be provide a proper Storge on dip tray to avoid damage on leaking Storge on dip tray to avoid damage on leaking 2.) Cenerol refusers found near the combined shaft 2.) Cenerol refusers found near the combined shaft and the gren channel out flow shall be removed. Signatures: WSD's Supervising Officer's IEC's Contractor's Representative Representative ET Representative Representative Representativ ) (Name: (Name: ouig ) (Name: A (Name: THM (Name: LUA wan on





#### WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

| Inspection Date: _2 | 30/9/2022   | Inspected by: |               | acky Leing |          | ek Lai | WSD: C.IL. Yzp |
|---------------------|-------------|---------------|---------------|------------|----------|--------|----------------|
| Inspection Time:    | 09-15-12:30 |               | Contractor: K | jaz Kan    | IEC: Low | s Kwan |                |
| Weather             |             |               |               |            |          | - m    |                |
| Condition           | Sunny       | Overcast      | Drizzle       | Rain       | Storm    | Hazy   |                |
| Temperature         | 26°c        | Humidity      | High          | Moderate   | Low      |        |                |
| Wind                | Calm Light  | Breeze        | Strong        |            |          |        |                |

| Item                | EIA ref. |   | N/A          | Yes            | No | Photo/Remarks |
|---------------------|----------|---|--------------|----------------|----|---------------|
| No.                 |          |   |              |                |    |               |
| <b>0.00</b> 0.01    |          | General<br>Is the current Environmental Permit displayed conspicuously at all vehicle site  |              |                |    |               |
|                     |          | entrances/exits for public's information at any time?   |              | V              |    |               |
| 0.02                |          | Is ET Leader's log-book kept readily available for inspections?   |              | $\checkmark$   |    |               |
|                     |          | Construction Dust   |              |                |    |               |
| <b>1.00</b><br>1.01 | S4.8.1   | Are dusty materials, such as excavated materials, building debris and construction materials, and exposed earth surface properly covered to prevent dust emission?    |              | $\checkmark$   |    |               |
| 1.02                | S4.8.1   | Are screenings, enclosures, water spraying, or vacuum cleaning devices provided to  |              |                |    |               |
|                     |          | dusty construction works for dust suppression?  |              | $\vee$         |    |               |
| 1.03                | S4.8.1   | Are fumes or smoke emitting plants or construction activities shielded by a screen?   | $\checkmark$ |                |    |               |
| 1.04                | S4.8.1   | Are wheel-washing facilities with high-pressure water jets provided at all site exits?  |              | $\mathbf{X}$   |    |               |
| 1.05                | S4.8.1   | Is wheel-washing provided to all vehicles leaving the site?   |              |                |    |               |
| 1.06                | S4.8.1   | Are road section near the site exit free from dusty material?   |              | $\mathbf{V}$   |    |               |
| 1.07                | S4.8.1   | Are all main haul roads inside the site paved or sprayed with water to minimize dust emission during vehicle movement?  |              | $\overline{V}$ |    |               |
| 1.08                | S4.8.1   | Are water spraying provided immediately prior to any loading or transfer of dusty materials?  | $\bigvee$    |                |    |               |
| 1.09                | S4.8.1   | Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?   |              | $\checkmark$   |    |               |
| 1.10                | S4.8.1   | Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of boulders, poles, pillars sprayed with water to maintain the entire surface wet? | $\checkmark$ |                |    |               |
| 1.11                | S4.8.1   | Is exposed earth properly treated within six months after the last construction activity on site?   | $\checkmark$ |                |    |               |
| 1.12                | S4.8.1   | Does the operation of plants on site free form dark smoke emission?   |              | $\checkmark$   |    |               |
| 1.13                | S4.8.1   | Are vehicles travelling at speed not exceeding 15km/hr within the site?   |              | $\square$      |    |               |
| 1.14                | S4.8.1   | Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?  | $\checkmark$ |                |    |               |
|                     |          |   |              |                |    |               |





| Item             | EIA ref. |  | N/A                      | Yes          | No | Photo/Remarks |
|------------------|----------|--|--------------------------|--------------|----|---------------|
| No.              |          |  |                          |              |    |               |
| 1.15             | S4.8.1   | Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?                                   | $\checkmark$             |              |    |               |
| 1.16             | S4.8.1   | Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?                    | $\checkmark$             |              |    |               |
| 1.17             | S4.8.1   | ls open burning prohibited?  |                          | $\checkmark$ |    |               |
| <b>2.00</b> 2.01 | S5.7     | Construction Noise (Airborne)<br>Are quiet plants adopted on site?   |                          | $\checkmark$ |    |               |
| 2.02             | S5.7     | Are the PMEs operating on site well-maintained to minimize the generation of excessive noise?                                    |                          | $\bigvee$    |    | •••           |
| 2.03             | S5.7     | Are plants throttled down or turned off when not in use?   |                          | $\bigvee$    |    |               |
| 2.04             | S5.7     | Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?                                    | $\checkmark$             |              |    |               |
| 2.05             | S5.7     | Are moveable barriers provided to screen NSRs from plant or noisy operations?  |                          |              |    |               |
| 2.06             | S5.7     | Are silencers, mufflers and enclosures provided to plants?   | $\checkmark$             |              |    |               |
| 2.07             | \$5.7    | Are the hoods, cover panels and inspection hatches of PMEs closed during operation?  | $\overline{\mathcal{V}}$ |              |    |               |
| 2.08             | S5.7     | Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?                      |                          |              |    |               |
| 2.09             | \$5.7    | Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?                | į                        |              |    |               |
| 2.10             | \$5.7    | Are valid noise emission label(s) affixed to all hand-held breakers operating on site?   |                          |              |    |               |
| 2.11             | S5.7     | Are valid noise emission label(s) affixed to all air compressors operating on site?  |                          |              |    |               |
| 2.12             | S5.7     | Are all construction noise permit(s) applied for percussive piling work?   |                          |              |    |               |
| 2.13             | \$5.7    | Are construction noise permit(s) applied for general construction works during restricted hours?                                 |                          | $\bigvee$    |    |               |
| 2.14             | S5.7     | Are valid construction noise permit(s) displayed at all vehicular exits?   |                          | $\checkmark$ |    |               |
| 3.00             |          | Water Quality  |                          |              |    |               |
| 3.01             | S6.9     | Is effluent discharge license obtained for wastewater discharge from site?   |                          | $\mathbf{V}$ |    |               |
| 3.02             | S6.9     | Is effluent discharged according to the effluent discharge license?  |                          | $\bigvee$    |    |               |
| 3.03             | S6.9     | Is wastewater discharge from site properly treated prior to discharge?   |                          | $\bigvee$    |    |               |
| 3.04             | S6.9     | Are perimeter channels provided to intercept storm runoff from outside the site?   |                          |              |    |               |
| 3.05             | S6.9     | Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff? |                          | $\checkmark$ |    |               |
|                  |          |  |                          |              |    |               |





| Item    | EIA ref. | ct no. 13/WSD/17 Design, Build and Operate First Stage of                                      | N/A       | Yes          | No  | Photo/Remarks |
|---------|----------|--|-----------|--------------|-----|---------------|
| No.     |          |  | IN/A      | 1 05         | INO | Photo/Remarks |
| 3.06    | \$6.0    |  |           |              |     |               |
| 5.00    | 50.9     | Is surface runoff diverted to sedimentation facilities?  |           | 1/           |     |               |
| 3.07    | S6.9     |  |           |              |     |               |
|         |          | Is the drainage system properly maintained?  |           |              |     |               |
| 3.08    | S6.9     | Are construction works carefully programmed to minimize soil excavation works                  |           |              |     |               |
|         |          | during rainy seasons?  |           |              |     |               |
| 3.09    | S6.9     | Are exposed soil surface protected by paving as soon as possible to reduce the                 |           |              |     |               |
|         |          | potential of soil erosion?   |           | 1/           |     |               |
| 3.10    | 56.0     |  |           |              |     |               |
| 5.10    | 50.9     | Are temporary access roads protected by crushed gravel?  |           |              |     |               |
| 3.11    | \$6.9    |  |           | U            |     | N             |
|         |          | Are exposed slope surface properly protected?  |           |              |     |               |
| 3.12    | S6.9     | Is trench excavation avoided in the wet season as far as practicable, or if necessary,         |           |              |     |               |
|         |          | backfilled in short sections after excavation?   | $\bigvee$ |              |     |               |
| 3.13    | 56.9     | Are open stockpiles of construction materials on site covered by tarpaulin or similar          |           |              |     |               |
|         | 50.7     | fabric during construction?  |           |              |     |               |
|         | 2.00     |  |           |              |     |               |
| 3.14    | \$6.9    | Is runoff from wheel-washing facilities avoided?   |           |              |     |               |
| 3.15    | 66.0     |  |           |              |     |               |
| 5.15    | 50.9     | Is oil leakage or spillage prevented?  |           |              |     |               |
| 3.16    | \$6.9    | Are there any measures to prevent the release of oil and grease into the storm                 |           | V            |     |               |
| 5.10    | 50.9     | drainage system?   |           |              |     |               |
|         |          | drainage system?   |           |              |     |               |
| 3.17    | S6.9     | Are the oil interceptors/ grease traps properly maintained?                                    | 1         |              |     |               |
| 3.18    | 66.0     |  |           |              |     |               |
| 5.10    |          | Are debris and rubbish generated on site collected, handled and disposed of                    |           |              |     |               |
|         |          | properly to avoid them entering the streams?   |           |              |     |               |
| 3.19    | S6.9     | Are all fuel tanks and storage areas provided with locks and be sited on sealed                |           |              |     |               |
|         |          | areas, within bunds of capacity equal to 110% of the storage capacity of the largest           |           |              |     |               |
|         |          | tank?  |           |              |     |               |
| 3.20    | S6.9     | Are tanks, containers, storage area bunded and the locations locked as far as                  |           |              |     |               |
|         |          | possible from the sensitive watercourse and stormwater drains?                                 |           | V            |     |               |
| 3.21    |          | Are sufficient chemical toilets provided on site to handle sewage from construction            |           |              |     |               |
|         |          | work force?  |           |              |     |               |
| 2 2 2 1 |          |  |           |              |     |               |
| 3.22    |          | Are sewage disposal and toilet maintenance of the portable chemical toilets                    |           |              |     |               |
|         |          | provided by the licensed contractors?  |           | $\Box$       |     |               |
| 3.23    | \$6.9    | Is concrete washing water properly collected and treated prior to discharge?                   |           |              |     |               |
|         |          |  | $\vee$    |              |     |               |
| 3.24    | S6.9     | Is suitable type of silt curtains deployed during dredging to reduce the elevation of          |           |              |     |               |
|         |          | suspended solids to nearby sensitive receivers?  |           | $\checkmark$ |     |               |
| 3.25    | \$6.9    |  |           |              |     |               |
|         |          | Is closed grab dredger used to reduce the potential leakage of sediments?                      |           |              |     |               |
| 3.26    | \$6.9    |  |           |              |     |               |
|         |          | Is closed grab dredger of 3 to 6 m <sup>3</sup> used for dredging at seawater intake?          |           |              |     |               |
| 3.27    | 56.0     | Is specific work staff assigned the responsibility for the indiana is a state                  |           |              |     |               |
|         |          | Is specific work staff assigned the responsibility for monitoring the number of grab           |           |              |     |               |
|         | 1        | dredged per hour? Is number of cycle limited to 20-21 grab per hour for 3m <sup>3</sup> closed |           |              |     |               |
|         |          | grab, 10-11 grab per hour for 6m3 closed grab?   | $\Delta $ |              |     |               |





| Item | EIA ref. | the for the second state of the second state o | N/A                | Yes                  | No | Photo/Remarks |
|------|----------|--|--------------------|----------------------|----|---------------|
| No.  |          |  |                    |                      |    |               |
| -    | 660      | Is the grab operated in slow and controlled manner such that the impact to seabed  |                    |                      |    |               |
| 3.28 |          |  |                    |                      |    |               |
|      |          | by the grab when being lowered could be minimized? Is the operator ensured the   | $\mathbf{\Lambda}$ |                      |    |               |
|      |          | grab be properly closed before lifting the grab?   |                    |                      |    |               |
| 3.29 | S6.9     | Is the maximum allowed dredging rate at the seawater intake limited to 750 m3/day  |                    |                      |    |               |
|      |          | while the maximum allowed dredging rate at the submarine outfall is 3,500  |                    |                      |    |               |
|      |          | m3/day?  | $\checkmark$       |                      |    |               |
| 3.30 | S6.9     | Is dredged marine sediment disposed of in a gazetted marine disposal area in   |                    |                      |    |               |
|      |          | accordance with marine dumping permit conditions of the Dumping at Sea   |                    |                      |    |               |
|      |          | Ordinance (DASO)?  | $\checkmark$       |                      |    |               |
| 2.21 | 66.0     | Are disposal vessels fitted with tight bottom seals in order to prevent leakage of   |                    |                      |    |               |
| 3.31 | 50.9     |  |                    |                      |    |               |
|      |          | material during transport?   |                    |                      |    |               |
| 3.32 | S6.9     | Are barges filled to a level which ensures that material does not spill over during  |                    |                      |    |               |
|      |          | transport to the disposal site and that adequate freeboard is maintained to ensure   |                    |                      |    |               |
|      |          | that the decks are not washed by wave action?  |                    |                      |    |               |
| 3.33 | S6.9     | Are excess materials cleaned from decks and exposed fittings before the vessel is  |                    |                      |    |               |
|      |          | moved from the dredging area after dredging?   | 5/                 |                      |    |               |
| 3 34 | S6.9     | Are the contractor(s) confirmed that the works cause no visible foam, oil, grease,   |                    |                      |    |               |
| 5.54 | 50.7     | litter or other objectionable matter to be present in the water within and adjacent  |                    |                      |    |               |
|      |          |  |                    |                      |    |               |
|      |          | to the dredging site?  |                    |                      |    |               |
| 3.35 | S6.9     | When the dredged material has been unloaded at the disposal areas, is any material   |                    |                      |    |               |
|      |          | accumulated on the deck or other exposed parts of the vessel removed and placed in   |                    |                      |    |               |
|      |          | the hold or a hopper?  |                    |                      |    |               |
| 3.36 | S6.9     | Is dredger maintained adequate clearance between vessels and the seabed at all   |                    |                      |    |               |
|      |          | states of the tide and reduce operations speed to ensure that excessive turbidity is   |                    |                      |    |               |
|      |          | not generated by turbulence from vessel movement or propeller wash?  |                    |                      |    |               |
| 3 37 | S6.9     | Is the contractor shall regularly inspect the silt curtains and check that they are  |                    |                      |    |               |
| 5.57 | 30.9     | moored and marked to avoid danger to marine traffic? Is regular inspection on the  |                    |                      |    |               |
|      |          |  |                    |                      |    |               |
|      |          | integrity of the silt curtain carried out by the contractor and any damage to the silt   |                    |                      |    |               |
|      |          | curtain shall be repaired by the contractor promptly?  |                    |                      |    |               |
| 3.38 | S6.9     | Are all vessels have a clean ballast system?   |                    |                      |    |               |
|      |          |  |                    |                      |    |               |
| 3.39 | S6.9     | Are all vessels well maintained and inspected before use to limit any potential  |                    |                      |    |               |
|      |          | discharges to the marine environment?  |                    |                      |    | -             |
| 3.40 | S6.9     | Is any discharge of sewage/grey wastewater? Is wastewater from potentially   |                    |                      |    |               |
|      |          | contaminated area on working vessels should be minimized and collected?  |                    |                      |    |               |
| 2.41 | 660      |  |                    |                      |    |               |
| 3.41 | \$6.9    | Is any soil waste disposed overboard?  |                    |                      |    |               |
| 4.00 |          | Waste Management   |                    |                      |    |               |
| 4.01 | S8.5     | Is a trip-ticket system implemented to monitor the disposal of C&D and solid   |                    |                      |    |               |
|      |          | wastes at public filling facilities and landfills?   |                    | . /                  |    |               |
|      |          |  |                    |                      |    |               |
| 4.02 | \$8.5    | Is a recording system implemented to record the amount of wastes generated,  |                    | $\nabla \mathcal{I}$ |    |               |
|      |          | recycled and disposed of?  |                    |                      |    |               |
| 4.03 | 3 S8.5   |  |                    | 1                    |    |               |
|      |          | Is the Contractor registered as a chemical waste producer?   |                    | $\nabla$             |    |               |
|      |          |  |                    |                      |    |               |





| Item  | EIA ref. | act no. 13/WSD/17 Design, Build and Operate First Stage of                               | N/A    | Yes          | No  | Photo/Remarks |
|-------|----------|--|--------|--------------|-----|---------------|
| No.   |          | ,  | IN/A   | res          | INO | Photo/Remarks |
| 4.04  | S8.5     | Is chemical waste separated from other waste and collected by a licensed chemical        |        |              |     |               |
|       | 0010     | waste collector?   |        |              |     |               |
| 4.05  | 00.5     | waste conector?  |        |              |     |               |
| 4.05  | S8.5     | Are trip tickets for chemical waste disposal available for inspection?                   |        | . /          |     |               |
| 4.06  | S8.5     |  |        |              |     | -             |
| 4.00  | 50.5     | Is drip tray provided for chemical storage?  |        |              |     | abol          |
| 4.07  | S8.5     |  |        |              |     | 055           |
| 4.07  | 30.5     | Are all containers for chemical waste properly labelled?                                 |        |              |     |               |
| 4.08  | S8.5     | In alternical master stores and with the store of the store stores and                   |        | ЦШ           |     |               |
| 4.00  | 30.5     | Is chemical waste storage area used solely for storage of chemical waste and             |        |              |     |               |
|       |          | properly labelled?   |        |              |     |               |
| 4.09  | S8.5     | Are incompatible chemical wastes stored in different areas?                              |        |              |     |               |
|       |          |  | V      |              |     |               |
| 4.10  | S8.5     | Is the chemical waste storage area enclosed on at least 3 sides and adequately           |        |              |     |               |
|       |          | ventilated?  |        | $\bigvee$    |     |               |
| 4.11  | S8.5     | Is an impermeable floor and bunding, of capacity to accommodate 110% of the              |        |              |     |               |
|       |          | volume of the largest container or of 20% by volume of the chemical waste stored         |        |              |     |               |
|       |          | in that area, whichever is the greatest, provide?  |        |              |     |               |
| 4.12  | S8.5     | Are a routine cleaning and maintenance programme implemented for drainage                |        |              |     |               |
|       |          | systems, sump pits, and oil interceptors?  |        |              |     |               |
| 1 1 3 | S8.5     | systems, sump pro, and on interceptors:  |        |              |     |               |
| 4.15  | 30.5     | Are sufficient general refuse disposal/collection points provided on site?               |        | 14/          |     |               |
| 4.1.4 | S8.5     |  |        |              |     |               |
| 4.14  | 58.5     | Is general refuse disposed of properly and regularly?                                    |        | . /          |     | 0. 1.1        |
| 4.15  | C 9 5    |  |        |              |     | Lemmar        |
| 4.15  | 50.5     | Are appropriate measures adopted to minimize windblown litter and dust during            |        |              |     |               |
|       |          | transportation of waste?   |        | Ц            |     |               |
| 4.16  | \$8.5    | Are individual collectors for aluminum cans, plastic bottles and packaging material      |        |              |     |               |
|       |          | and office paper provided to encourage waste segregation?                                |        | $\checkmark$ |     | -             |
| 4.17  | S8.5     | Are C&D wastes sorted on site?   |        |              |     |               |
|       |          |  |        | $\checkmark$ |     |               |
| 4.18  | S8.5     | And C&D month discound of month 0  |        |              |     |               |
|       |          | Are C&D waste disposed of properly?  |        | $\Box$       |     |               |
| 4.19  | S8.5     | Are unused C&D materials or chemicals recycled or reused to reduce the quantity          |        |              |     |               |
|       |          | of waste?  |        |              |     |               |
| 1.20  | \$8.5    | Are public fill and C&D waste reuse on site as far as practicable to avoid disposal      |        |              |     |               |
|       |          | off-site?  |        |              |     |               |
| 121   |          |  |        |              |     |               |
| 4.21  | 58.5     | Are the construction materials stored properly to minimize the potential for damage      |        |              |     |               |
|       |          | or contamination?  |        |              |     | -             |
| 1.22  | S8.5     | Is a dumping license obtained to deliver public fill to public filling areas?            |        | . 7          |     |               |
|       |          |  |        | $\mathbf{M}$ |     |               |
| .00   | S11.10   | Landscape and Visual   |        |              |     |               |
| .01   | & 11.11  | Are Is site hoarding provided?   |        |              |     |               |
| 02    | S11 10 P |  |        |              |     |               |
|       | S11.10 & | Are vegetation disturbance minimized or soil protected to reduce potential soil erosion? |        | $\sqrt{1}$   |     |               |
|       | 11.11    |  |        | V            |     |               |
|       | S11.10 & | ls construction light oriented away from the sensitive receivers?                        |        |              |     |               |
| 1     | 11.11    | and the second state and a second the second state receivers;                            | $\sum$ |              |     |               |





| min       in Art.       in a construction works are incompared to slopes as soon as the completion of works?       in a construction works are ideal.         5.04       S11.10       kg rass hydroseeding provided to slopes as soon as the completion of works?       in a construction works are ideal.         5.05       S11.10       Are duranges to trees outside site boundary due construction works avoided?       in a construction works carried out manually instead of machinery operation within 2.5m       in a construction works carried out manually instead of machinery operation within 2.5m         5.07       S11.10       Are the retained and manuplanted tree(s) properly protected and in good conditions?       in a construction works carried out for damaged trees?         5.08       S11.10       Are the retained and well-maintained?       in a construction works carried ou prevent any silly runoff?       in a construction works carried to prevent any silly runoff?         6.00       S9.7       Are softepin tiggation works within the Clear Water Bay County Park, are tree felling and an dreck dowels adjusted during during during as practically?       in a construction works area which are practical?         6.01       Kit as the alignment of the clear Water Bay County Park, are tree felling and an dreck dwels adjusted during during the structure for budied in a structure for a signification works within the Clear Water Bay County Park, are tree felling and individually within the works area and in the close prevent foundation plates, soil makes and from a construction as far a spracicable? Are to alignamet of the clobe bararies reprevise adjustin  |      |             | t no. 13/WSD/17 Design, Build and Operate First Stage of T  | N/A          | Yes          | No  | Photo/Remarks   |
|--|------|-------------|---|--------------|--------------|-----|-----------------|
| 644       \$11.10<br>k = 11.11       is grass hydroseeding provided to slopes as scon as the completion of works? <ul> <li>grass hydroseeding provided to slopes as scon as the completion of works?</li> <li>grass hydroseeding provided to slopes as scon as the completion of works?</li> <li>grass hydroseeding provided to slopes as scon as the completion of works?</li> <li>grass hydroseeding provided to slopes as scon as the completion of works?</li> <li>grass hydroseeding provided to slopes as scon as the completion of works?</li> <li>grass hydroseeding provided to slopes as scon as the completion of works?</li> <li>grass hydroseeding provided to slopes as scon as the completion of works?</li> <li>grass hydroseeding provided to slopes as scon as the completion of works?</li> <li>grass hydroseeding provided to slope as scon as the completion of works?</li> <li>grass hydroseeding provided to slope as scon as the completion of works?</li> <li>grass hydroseeding provided to slope as scon as the completion of works?</li> <li>grass hydroseeding provided to slope as scon as the completion of works?</li> <li>grass hydroseeding provided to slope as scon as the completion of works?</li> <li>grass hydroseeding provided to slope as scon as the completion of works?</li> <li>grass hydroseeding provided to slope as scon as the completion of works?</li> <li>grass hydroseeding provided to slope as scon as the completion of works?</li> <li>grass hydroseeding provided to slope as scon as a which are clearly defined?</li> <li>grass hydroseeding provided to a scon and work within the Clear Water By Country Park, are tree filling and damages to trees, the caset locations of the flexible barriter foundinoin plates, soil mails and rock dowes slagitach during</li></ul>  |      | EIA ref.    |   | 19/23        | 103          | 110 | - noto, remarks |
| k 11.11       Is grass hydroseeding provided to slopes as soon as the completion of works? <ul> <li>[1]</li> <li>[1]</li></ul>  |      |             |   |              |              |     |                 |
| x 11.11       Image: to trees outside site boundary due construction works avoided?         11.11       initial defect on trees outside site boundary due construction works avoided?         11.11       vicinity of any preserved trees?         507       \$11.10 & defect on trees outside site boundary due construction works avoided?         11.11       vicinity of any preserved trees?         507       \$11.10 & defect on trees outside site boundary due construction works avoided?         11.11       vicinity of any preserved trees?         508       \$11.10 & defect on trees outside trees?         509       \$11.10 & defect on the tree of the  | 5.04 | S11.10      | Is grass hydroseeding provided to slopes as soon as the completion of works?  | V            |              |     |                 |
| 1.11       Are durages to trees outside site boundary due construction works avoided?  |      | & 11.11     | is grass injuroseeding provided to oppro as the arms in a   |              |              |     |                 |
| 11.11       Construction       Construction       Construction       Construction         11.11       Construction       Are the retained and transplanted trees?       Construction       Construction         11.11       Construction       Construction       Construction       Construction       Construction         11.11       Construction       Construction       Construction       Construction       Construction       Construction         11.11       Construction       Constr   | 5.05 | S11.10 &    | the transfer it is how done construction works avoided?   |              |              |     |                 |
| 1.11       vicinity of any preserved trees?       Image: Construction of the set of          |      | 11.11       | Are damages to trees outside site boundary due construction works avoided:  |              | V            |     |                 |
| 1.11       vicinity of any preserved trees?       Image: Construction of the set of          | 5.06 | S11.10 &    | Is excavation works carried out manually instead of machinery operation within 2.5m   |              |              |     |                 |
| 507       \$11.10 & & Are the retained and transplanted tree(s) properly protected and in good conditions?   |      |             |   | $\checkmark$ |              |     | ·               |
| 11.11       Are the retained and transplaned tree(s) properly protected and in good conditions?  |      |             |   |              |              |     |                 |
| 5.08       \$11.10       & Are surgery works carried out for damaged trees?       Image: Content of the second se                  |      |             | Are the retained and transplanted tree(s) properly protected and in good conditions?  |              |              |     |                 |
| 11.11       Image: construction of the property treated to prevent any silly runoff?         6.00       S9.7       Kecology         6.01       S9.7       Are silt trup installed and well-maintained?         6.02       S9.7       Are solit trup installed and well-maintained?         6.03       S9.7       Are solit trup installed and well-maintained?         6.04       S9.7       Are construction works restricted to works area which are clearly defined?         6.04       S9.7       Are construction works restricted to works area which are clearly defined?         6.05       S9.7       For slope mitigation works within the Clear Water Bay Country Park, are tree felling and damages to trees, the exact locations of the flexible barrier foundation plates, soil naits and rock dowels adjusted during detailed design, and a setback distance from existing trees is recommended to be maintained as far as practical?         6.06       S9.7       Are pruning of tree canopies along the alignment of the flexible barriers limited to a minimimum?         5.07       S9.7       Is the alignment of flexible barriers optimized to preserve all species of conservation interest and minimize the impact to the existing vegetation as far as practicable? Are the alignment of flexible barriers positioned at minimum 1.5 m in a radius away from these infort/duals/2 within the works area and in the close proximity to prevent from being damaged and disturbed during construction? Is a sign ientifying the site attached to the free and flagging tap shall be attached to the individuals to issualize their locations?   |      |             |   |              |              |     |                 |
| 6.00       S9.7       Ecology         6.01       Is site runoff properly treated to prevent any silly runoff?       Image: Construction with the properly treated to prevent any silly runoff?         6.02       S9.7       Are slit trap installed and well-maintained?       Image: Construction works restricted to works area which are clearly defined?         6.03       S9.7       Are stockpiles properly covered to avoid generating silly runoff?       Image: Construction works restricted to works area which are clearly defined?         6.04       S9.7       For slope mitigation works within the Clear Water Bay Country Park, are tree felling and damages to trees, the exact locations of the flexible barrier foundation plates, soil nails and rock dowels adjusted during detailed design, and a setback distance from existing trees is recommended to be maintained as far as practical?         6.06       S9.7       Is the alignment of the chible barriers optimized to preserve all species of conservation interest and minimum 2.5 m in a radius away from these individually within the works area and in the close proximity to prevent from being damaged and disturbed during construction? Is a sign identifying the site attached to the face and flagging tape shall be attached to the individuals of Marsdenai lachnostoma (or other flora species) of conservation interest. If found) adjacent to the proposed alignment of the flexible barriers prepared to protect the species?         6.00       S9.7       Is sup clicitation for fencing and demarcating individuals of Marsdenai lachnostoma (or other flora species) of conservation interest. If found) adjacent to the proposed alignment of the flexible barriers prepar  | 5.08 | S11.10 &    | Are surgery works carried out for damaged trees?  |              |              |     |                 |
| 6.01       Is site runoff properly treated to prevent any silly runoff?       Image: I          |      | 11.11       |   |              |              |     |                 |
| 6.02       \$9.7       Are silt trap installed and well-maintained?       Image: Solution of the state state of the state of the state of the state of the s                  | 6.00 | S9.7        | Ecology   |              |              |     |                 |
| 6.02       \$9.7       Are silt trap installed and well-maintained?       Image: Solution of the state state of the state of the state of the state of the s                  | 6.01 |             | Is site runoff properly treated to prevent any silly runoff?  |              |              |     |                 |
| 10.03       S9.7       Are stockpiles properly covered to avoid generating silly runoff?         10.04       S9.7       Are construction works restricted to works area which are clearly defined?         10.05       S9.7       Are construction works restricted to works area which are clearly defined?         10.05       S9.7       For slope mitigation works within the Clear Water Bay Country Park, are tree felling and damages to trees, the exact locations of the flexible barrier foundation plates, soil nails and rock dowels adjusted during detailed design, and a setback distance from existing trees is recommended to be maintained as far as practical?         6.06       S9.7       Are pruning of tree canopies along the alignment of the flexible barriers limited to a minimum?         6.07       S9.7       Is the alignment of flexible barriers optimized to preserve all species of conservation interest and minimize the impact to the existing vegetation as far as practicable? Are the alignment of flexible barriers positioned at minimum 1.5 m in a radius away from these individuals?         6.08       S9.7       Is temporary fancing installed to fence off the concerned species either in groups of individuals?         6.08       S9.7       Is a specification for fencing and demarcating individuals of Marsdenai lachnostom for other from species of conservation interest, if found) adjacent to the proposed alignment of the flexible barriers prepared to protect the species?         6.09       S9.7       Is a specification for fencing and demarcating individuals of Marsdenai lachnostoma (other flox species is conservation interest  |      | \$9.7       |   |              |              |     |                 |
| 6.04       S9.7       Are construction works restricted to works area which are clearly defined?   | 0.02 | 39.1        | Are silt trap installed and well-maintained?  | $\checkmark$ |              |     |                 |
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| Are construction works restricted to Works area which are clearly defined.   |      | 57.1        | Are stockpiles properly covered to avoid generating silty runoff?   | $\mathbf{V}$ |              |     |                 |
| Are construction works restricted to Works area which are clearly definited.   | 6.04 | 50.7        |   |              |              |     |                 |
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| damages to trees, the exact locations of the flexible barrier foundation plates, soil nails         and rock dowels adjusted during detailed design, and a setback distance from existing         trees is recommended to be maintained as far as practical?         6.06       S9.7         Are pruning of tree canopies along the alignment of the flexible barriers limited to a         minimum?         5.07       S9.7         is the alignment of flexible barriers optimized to preserve all species of conservation         individuals?         6.08       S9.7         is temporary fencing installed to fence off the concerned species either in groups of         individually within the works area and in the close proximity to prevent from being         damaged and disturbed during construction? Is a sign identifying the site attached to the         fence and flagging tape shall be attached to the individuals to visualize their locations?         6.09       S9.7         Is a specification for fencing and demarcating individuals of Marsdenai lachnostoma (or<br>other flora species of conservation interest, if found) adjacent to the proposed alignment<br>of the flexible barriers prepared to protect the species?         6.10       S9.7       Is any induction training provided to all site personnel in order to brief them on this flora<br>of conservation interest and their importance?         6.11       S9.7       Is the resident site supervisory staff closely monitor the commencement of<br>   |      | <b>GO G</b> | The state of the state of the Clear Water Bay Country Park are tree felling and   |              |              |     |                 |
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|---------------------|----------|--|-----|--------------|----|---------------|
| No.                 |          |  |     |              |    |               |
| 6.15                | S9.7     | Are temporarily affected areas reinstated, particularly the habitats of plantation and shrubland-grassland immediately after completion of construction works, through on-site tree/shrub planting?                |     | $\checkmark$ |    |               |
| 6.16                | S9.7     | Are affected habitats within the Clear Water Bay Country Bay reinstated by hydro-<br>seeding and planting of climbers and native shrub seedlings where practical upon<br>completion of the slope mitigation works? |     |              |    |               |
| 7.00                | ]        | Landfill Gas Hazard  |     |              |    |               |
| 7.01                | S12.7    | Are the safety procedures implemented to minimise the risks of fires and explosions, asphyxiation of works and toxicity effects during all works?  |     | $\bigvee$    |    |               |
| 7.02                | S12.7    | Are the gas detection equipment and precautions being used during trenching and excavation as well as creation of confined spaces?   |     | $\checkmark$ |    |               |
| 7.03                | S12.7    | Are the training with regard to the awareness of potential hazards of working in confined spaces provided from the Contractor to the workers?  |     |              |    |               |
| 7.04                | S12.7    | Are the safety officers trained with regard to landfill gas and leachate related hazards and presented on the site throughout the works undertaken below grade?  |     |              |    |               |
| 7.05                | S12.7    | Are the all personnel working on site and all visitor made aware of the possibility of ignition of gas, the possible presence of contaminated water and the need to avoid physical contact?                        |     | $\Box$       |    |               |
| 7.06                | S12.7    | Is the monitoring of landfill gas being undertaken in all excavations, manholes, chambers and any confined spaces?   |     |              |    | <b></b>       |
| 7.07                | S12.7    | Are the monitoring frequency and areas being specified by the safety officers or appropriately qualified person? Are the all measurements being recorded and documented?   |     | $\checkmark$ |    |               |
| 7.08                | S12.7    | Is the drilling proceeded with adequate care and precautions against the potential hazards?  |     | $\checkmark$ |    |               |
| 7.09                | S12.7    | Is the method statement covering all normal and emergency procedures provided by<br>the drilling contractor prior to the commencement of the site works?   |     | $\checkmark$ |    |               |
| 7.10                | S12.7    | Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?   |     |              |    | -             |
| 7.11                | S12.7    | Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?                  |     | $\checkmark$ |    |               |
| 7.12                | S12.7    | Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?   |     |              |    |               |
| <b>8.00</b><br>8.01 |          | Overall<br>Is the EM&A properly implemented in general?  |     | $\checkmark$ |    |               |





Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection: bewation 1) Ellewical containers shell be stored on ikeproper storape Benation a dip tray on with a ind general refuses shall the site atta diposed Remhden. contractors, ore chaging whole atter pp to un packi. right Signatures: ET Contractor's Supervising Officer's IEC's WSD's Representativ Representative Representative Representative Representative (Name: Verel (Name: (Name: con (Name: IZP LHIKE (Name: HANK non evan





## Appendix J

### **Complaint Log**





#### Statistical Summary of Environmental Complaints

| Reporting Period      | Environmental | Complaint Statistics |                  |
|-----------------------|---------------|----------------------|------------------|
|                       | Frequency     | Cumulative           | Complaint Nature |
| 1 – 30 September 2022 | 0             | 1                    | N/A              |

#### Statistical Summary of Environmental Summons

| Reporting Period      | Environmental              | Summons Statistics |     |  |  |  |  |  |  |  |  |
|-----------------------|----------------------------|--------------------|-----|--|--|--|--|--|--|--|--|
|                       | FrequencyCumulativeDetails |                    |     |  |  |  |  |  |  |  |  |
| 1 – 30 September 2022 | 0                          | 0                  | N/A |  |  |  |  |  |  |  |  |

#### Statistical Summary of Environmental Prosecution

| Reporting Period              | Environmental                | Prosecution Statistics |  |  |  |  |  |  |  |  |
|-------------------------------|------------------------------|------------------------|--|--|--|--|--|--|--|--|
|                               | Frequency Cumulative Details |                        |  |  |  |  |  |  |  |  |
| 1 – 30 September 2022 0 0 N/A |                              |                        |  |  |  |  |  |  |  |  |





## Appendix K

# Impact Monitoring Schedule of Next Reporting Month

|  | Т  | entative Water Qual | ity Monitoring Schedule  |     |  |
|--|--|---------------------|--|-----|--|
|  |  | 0                   | ct-22  |     |  |
| Sun Mon  | Tue  | Wed                 | Thu  | Fri | Sat  |
|  |  |                     |  |     | Impact Water Quility monitoring for<br>CE, CF, WSRI, WSR2, WSR3, WSR4, WSR16, WSR33,<br>WSR36, WSR57<br>Tial Period;<br>Ebb Tide: 1400-17.32<br>Flood Tide: 0640-14.00<br><u>Monitoring Time;</u><br>Mid-tbcb: 1400-17.30<br>Mid-flood: 08.30-12.00                  |
| 2 3  | 4  | 5                   | 6  | 7   | 8  |
|  | Impact Water Quality monitoring for<br>CE, CF, WSRJ, WSR2, WSR3, WSR4, WSR4, WSR4<br>WSR4, WSR2, WSR4, WSR4, WSR4<br>Tada Pentol<br>Fibo Tada (2017)<br>Fibo Tada (2017)<br>Fibo Tada (2017)<br>Fibo Tada (2017)<br>Fibo Tada (2017)<br>Mai-abb, 08:000-11:00<br>Mai-abb, 08:000-11:00 | 3,                  | Impact Water Quality monitoring for<br>CE, CF, WSR1, WSR2, WSR4, WSR16, WSR33,<br>WSR6, WSR57,<br><u>Tidal Percod.</u><br>Bb Tide, 16537-13313<br>Flood Tide, 113-20300<br><u>Monitoring Time</u> ,<br>Mid-abb, 08300-11300<br>Mid-abb, 08300-11300    |     | Impact Water Quality monitoring for<br>CE, CF, WSR1, WSR2, WSR3, WSR4, WSR16, WSR33,<br>WSR56, WSR37<br><u>Titula Periodi</u><br>Ebb Tate 0.680-0-41:18<br>Flood Tate; 141.82-11.5<br><u>Monitoring Time</u> ,<br>Mid-ebb/09/261-12.50<br>Mid-10.600-19.00           |
| 9 10   | 11   | 12                  | 13   | 14  | 15   |
|  | Impact Water Quality monitoring for<br>CE, CF, WSR1, WSR2, WSR4, WSR4, WSR4,<br>WSR4, WSR4, WSR4, WSR4,<br>Tidal Period;<br>Elso Tida (1024-1545)<br>Flood Tida: 1545-522.56<br>Molicity Time;<br>Mid-ebb 11:30-15:00<br>Mid-flood 1:600-19:00   | 3,                  | Impact Water Quality monitoring for<br>CE, CF, WSR1, WSR2, WSR4, WSR46, WSR33,<br>WSR66, WSR37<br><u>Tidal Period</u><br>Ebb Tude: 11.53-16.25<br>Flood Tide (0:500-11.53<br><u>Monitoring Time</u> ;<br>Mid-ebb: 12.33-16.00<br>Mid-lebb: 12.30-16.00 |     | Impact Water Quality monitoring for<br>CE, CF, WSRI, WSR2, WSR4, WSR16, WSR33,<br>WSR4, WSR16, WSR37,<br><u>Tital Period</u> .<br>Ebb Tute: 1345-16-10<br>Flood Tute: 0540-13-155<br><u>Monitoring Time</u> ,<br>Mid-ebb: 1400-1660<br>Mid-thot: 05800-1200          |
| 16 17  | 18   | 19                  | 20   | 21  | 22   |
|  | Impact Water Quality monitoring for<br>CE, CF, WSRI, WSR2, WSR4, WSR4, WSR16, WSR2<br>WSR1, WSR2, WSR4, WSR16, WSR1<br>Tada Period;<br>EbS Tide, 00:46-11:03<br>Flood Tide: 11:03-23:39<br>Monitoring Time, 0<br>Mid-flood; 15:00-19:00  | 3.                  | Impact Water Quality monitoring for<br>CE, CF, WSR1, WSR2, WSR3, WSR4, WSR16, WSR33,<br>WSR4, WSR37, WSR4, WSR37,<br><u>Tidal Period</u><br>Ebb Tuče, 04:15:2-40<br>Flood Tide: 12:40-21:00<br>Monitoring Time<br>Ard-Bood: 15:00 18:00                |     | Impact Water Quality monitoring for<br>CE, CF, WSRI, WSR2, WSR3, WSR4, WSR16, WSR33,<br>WSR4, WSR4, WSR16, WSR33,<br>Tialal Period.<br>Ebb Tiate (co.23:4-13:6<br>Fbood Take: 13:36-62:24)<br>Monitoring Time:<br>Water State (Store) 4:30<br>Mid-Book: (Store) 4:30 |
| 23 24  | 25   | 26                  | 27   | 28  | 29   |
| 30 31  | Impact Water Quality menitoring for<br>CE, CF, WSR1, WSR2, WSR4, WSR16, WSR3<br>WSR36, WSR37<br>Tida Period;<br>Ebb Tide (97:26-14:49<br>Flood Tide: 14:49-21:11<br><u>Monitoring Time</u> ,<br>Mid-abb. 10:30-13:00<br>Mid-flood.16:00-19:00  | 3.                  | Impact Water Quality monitoring for<br>CE, CF, WSR1, WSR2, WSR3, WSR3,<br>WSR3, WSR3,<br>Thial Period;<br>Ebb Tide: 11477-1600<br>Flood Tide: 04:06-11.07<br><u>Monitoring Time</u><br>Mid-tbc, 113:03-15:00<br>Mid-flood.08:00-11:00                  |     | Impact Water Quality meshindring for<br>CE, CF, WSR1, WSR2, WSR3, WSR3, WSR3,<br>WSR36, WSR37<br>T <u>tail Period</u><br>Ebb Tide: 13:00-16:17<br>Fisod Tute: 05:42-13:00<br><u>Mentioning Time</u><br>Md-ebb: 13:00-16:00<br>Mid-flood: 08:00-11:00                 |
| Remarks  |  |                     |  |     |  |
| Actuars:<br>1. Monitoring Parameters: Dissolved oxygen, Temperature, pH, Turbidity, Salinity, Suspended Solids |  |                     |  |     |  |

voue: - Due to safety concern of vessel transportation earlier than 0700, Water Quality Monitoring would start at 0800. - Prioritized routing: Mid-Ebb: CE→WSR16→WSR37→WSR36→WSR33→Remaining stations and Mid-Flood: CF→WSR1→WSR2→WSR3→WSR4→Remaining stations





Appendix L

## Water Quality and Landfill Gas Monitoring Data

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| CE       | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:35:00 AM | 8.7          | 8.2 | 31.0         | 29.8         | 2.7               | 3.0                        |
| CE       | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:35:00 AM | 8.7          | 8.2 | 30.9         | 29.9         | 2.6               | 2.5                        |
| CE       | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 11.9         | 10:34:00 AM | 8.9          | 8.2 | 30.9         | 29.8         | 3.0               | 2.5                        |
| CE       | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 11.9         | 10:34:00 AM | 8.8          | 8.1 | 31.1         | 29.8         | 2.8               | 3.0                        |
| CE       | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 22.8         | 10:33:00 AM | 8.8          | 8.2 | 30.9         | 29.9         | 3.1               | 2.5                        |
| CE       | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 22.8         | 10:33:00 AM | 8.9          | 8.2 | 31.1         | 29.8         | 3.2               | 4.0                        |
| CF       | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:02:00 AM  | 8.5          | 8.1 | 31.5         | 29.4         | 3.0               | 2.5                        |
| CF       | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:02:00 AM  | 8.6          | 8.1 | 31.5         | 29.4         | 3.0               | 3.0                        |
| CF       | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 9.6          | 8:01:00 AM  | 8.4          | 8.1 | 31.4         | 29.6         | 3.2               | 2.5                        |
| CF       | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 9.6          | 8:01:00 AM  | 8.6          | 8.1 | 31.5         | 29.5         | 3.2               | 2.5                        |
| CF       | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 18.2         | 8:00:00 AM  | 8.5          | 8.1 | 31.5         | 29.5         | 3.6               | 7.0                        |
| CF       | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 18.2         | 8:00:00 AM  | 8.5          | 8.2 | 31.5         | 29.4         | 3.5               | 4.0                        |
| WSR01    | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:25:00 AM  | 8.7          | 8.0 | 30.4         | 29.5         | 2.6               | 7.0                        |
| WSR01    | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:25:00 AM  | 9.1          | 8.1 | 30.4         | 29.4         | 2.2               | 5.0                        |
| WSR01    | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.2          | 8:24:00 AM  | 9.1          | 8.0 | 30.3         | 29.6         | 2.6               | 7.0                        |
| WSR01    | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.2          | 8:24:00 AM  | 8.8          | 8.0 | 30.3         | 29.6         | 2.3               | 6.0                        |
| WSR01    | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.4          | 8:23:00 AM  | 8.8          | 8.0 | 30.5         | 29.5         | 2.0               | 6.0                        |
| WSR01    | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.4          | 8:23:00 AM  | 9.0          | 8.1 | 30.6         | 29.5         | 2.2               | 7.0                        |
| WSR02    | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:43:00 AM  | 8.5          | 8.2 | 30.6         | 29.9         | 2.4               | 2.5                        |
| WSR02    | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:43:00 AM  | 8.5          | 8.2 | 30.6         | 29.8         | 2.2               | 4.0                        |
| WSR02    | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.5          | 8:42:00 AM  | 8.4          | 8.2 | 30.6         | 29.8         | 2.1               | 2.5                        |
| WSR02    | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.5          | 8:42:00 AM  | 8.6          | 8.3 | 30.7         | 29.8         | 2.1               | 2.5                        |
| WSR02    | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.0          | 8:41:00 AM  | 8.6          | 8.2 | 30.7         | 29.7         | 2.2               | 4.0                        |
| WSR02    | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.0          | 8:41:00 AM  | 8.4          | 8.2 | 30.6         | 29.8         | 2.0               | 6.0                        |
| WSR03    | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:57:00 AM  | 8.6          | 8.2 | 31.3         | 29.6         | 2.3               | 2.5                        |
| WSR03    | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:57:00 AM  | 8.7          | 8.3 | 31.2         | 29.6         | 2.1               | 2.5                        |
| WSR03    | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.7          | 8:56:00 AM  | 8.6          | 8.2 | 31.0         | 29.6         | 2.1               | 5.0                        |
| WSR03    | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.7          | 8:56:00 AM  | 8.5          | 8.3 | 31.2         | 29.5         | 1.9               | 4.0                        |
| WSR03    | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.4          | 8:55:00 AM  | 8.6          | 8.2 | 31.1         | 29.5         | 2.0               | 9.0                        |
| WSR03    | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.4          | 8:55:00 AM  | 8.5          | 8.2 | 31.1         | 29.6         | 1.8               | 5.0                        |
| WSR04    | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:10:00 AM  | 8.9          | 8.2 | 31.0         | 29.3         | 2.3               | 3.0                        |
| WSR04    | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:10:00 AM  | 8.8          | 8.2 | 31.0         | 29.4         | 2.6               | 2.5                        |
| WSR04    | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.4          | 9:09:00 AM  | 8.7          | 8.3 | 31.1         | 29.5         | 2.4               | 4.0                        |
| WSR04    | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.4          | 9:09:00 AM  | 8.8          | 8.2 | 31.0         | 29.4         | 2.3               | 6.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR04    | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 5.7          | 9:08:00 AM  | 8.9          | 8.2 | 31.0         | 29.4         | 2.1               | 8.0                        |
| WSR04    | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 5.7          | 9:08:00 AM  | 8.7          | 8.3 | 31.1         | 29.4         | 1.9               | 7.0                        |
| WSR16    | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:12:00 AM | 8.7          | 8.1 | 31.1         | 29.7         | 2.5               | 7.0                        |
| WSR16    | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:12:00 AM | 8.7          | 8.1 | 30.9         | 29.7         | 2.1               | 5.0                        |
| WSR16    | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 8.0          | 10:11:00 AM | 8.7          | 8.1 | 31.2         | 29.7         | 2.2               | 2.5                        |
| WSR16    | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 8.0          | 10:11:00 AM | 9.1          | 8.1 | 31.0         | 29.7         | 2.4               | 2.5                        |
| WSR16    | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 15.0         | 10:10:00 AM | 9.0          | 8.1 | 30.9         | 29.8         | 2.1               | 2.5                        |
| WSR16    | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 15.0         | 10:10:00 AM | 8.7          | 8.2 | 30.9         | 29.7         | 2.2               | 4.0                        |
| WSR33    | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:23:00 AM  | 8.9          | 8.1 | 31.2         | 29.4         | 2.3               | 2.5                        |
| WSR33    | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:23:00 AM  | 9.0          | 8.2 | 31.0         | 29.2         | 2.4               | 2.5                        |
| WSR33    | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.7          | 9:22:00 AM  | 8.9          | 8.2 | 31.1         | 29.3         | 2.5               | 2.5                        |
| WSR33    | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.7          | 9:22:00 AM  | 8.8          | 8.2 | 31.0         | 29.2         | 2.3               | 2.5                        |
| WSR33    | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.4          | 9:21:00 AM  | 9.1          | 8.2 | 31.0         | 29.2         | 2.1               | 2.5                        |
| WSR33    | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.4          | 9:21:00 AM  | 9.1          | 8.2 | 31.1         | 29.3         | 2.4               | 3.0                        |
| WSR36    | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:36:00 AM  | 8.8          | 8.2 | 31.4         | 29.8         | 2.6               | 2.5                        |
| WSR36    | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:36:00 AM  | 8.6          | 8.2 | 31.4         | 29.8         | 2.5               | 2.5                        |
| WSR36    | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.9          | 9:36:00 AM  | 8.8          | 8.2 | 31.4         | 29.8         | 2.6               | 4.0                        |
| WSR36    | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.9          | 9:36:00 AM  | 8.8          | 8.2 | 31.2         | 29.7         | 2.4               | 2.5                        |
| WSR36    | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.7          | 9:35:00 AM  | 8.8          | 8.2 | 31.4         | 29.7         | 2.1               | 2.5                        |
| WSR36    | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.7          | 9:35:00 AM  | 8.8          | 8.3 | 31.3         | 29.8         | 2.1               | 3.0                        |
| WSR37    | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:51:00 AM  | 8.5          | 8.2 | 30.3         | 29.8         | 2.3               | 3.0                        |
| WSR37    | 20220901 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:51:00 AM  | 8.4          | 8.2 | 30.3         | 29.8         | 2.1               | 4.0                        |
| WSR37    | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.3          | 9:50:00 AM  | 8.5          | 8.2 | 30.3         | 29.9         | 2.4               | 2.5                        |
| WSR37    | 20220901 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.3          | 9:50:00 AM  | 8.5          | 8.2 | 30.4         | 29.9         | 2.2               | 3.0                        |
| WSR37    | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.5          | 9:49:00 AM  | 8.5          | 8.2 | 30.3         | 29.9         | 2.1               | 2.5                        |
| WSR37    | 20220901 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.5          | 9:49:00 AM  | 8.4          | 8.2 | 30.4         | 29.8         | 2.1               | 3.0                        |
| CE       | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:29:00 AM | 8.4          | 8.0 | 30.7         | 30.0         | 3.2               | 4.0                        |
| CE       | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:29:00 AM | 8.4          | 8.1 | 30.7         | 30.0         | 3.2               | 4.0                        |
| CE       | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 10.2         | 11:28:00 AM | 8.5          | 8.1 | 30.8         | 29.9         | 3.4               | 6.0                        |
| CE       | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 10.2         | 11:28:00 AM | 8.4          | 8.0 | 30.7         | 30.0         | 3.3               | 6.0                        |
| CE       | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 19.3         | 11:27:00 AM | 8.4          | 8.0 | 30.7         | 30.0         | 3.8               | 6.0                        |
| CE       | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 19.3         | 11:27:00 AM | 8.5          | 8.0 | 30.7         | 30.0         | 3.6               | 4.0                        |
| CF       | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:55:00 AM  | 8.2          | 7.9 | 30.8         | 29.9         | 3.6               | 5.0                        |
| CF       | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:55:00 AM  | 8.4          | 8.0 | 30.7         | 29.9         | 3.5               | 4.0                        |
| CF       | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 9.6          | 9:54:00 AM  | 8.3          | 8.0 | 30.7         | 29.9         | 3.6               | 7.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| CF       | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 9.6          | 9:54:00 AM  | 8.2          | 8.0 | 30.6         | 29.9         | 3.9               | 6.0                        |
| CF       | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 18.1         | 9:53:00 AM  | 8.3          | 8.1 | 30.6         | 29.9         | 4.2               | 5.0                        |
| CF       | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 18.1         | 9:53:00 AM  | 8.3          | 8.0 | 30.6         | 29.9         | 4.2               | 5.0                        |
| WSR01    | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:18:00 AM | 8.8          | 8.0 | 30.3         | 29.7         | 1.3               | 7.0                        |
| WSR01    | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:18:00 AM | 8.8          | 8.0 | 30.6         | 29.8         | 1.4               | 6.0                        |
| WSR01    | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.7          | 10:17:00 AM | 8.9          | 8.0 | 30.4         | 29.7         | 2.3               | 3.0                        |
| WSR01    | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.7          | 10:17:00 AM | 8.8          | 8.0 | 30.4         | 29.7         | 2.4               | 3.0                        |
| WSR01    | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.3          | 10:16:00 AM | 8.9          | 8.0 | 30.4         | 29.7         | 2.3               | 7.0                        |
| WSR01    | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.3          | 10:16:00 AM | 8.8          | 8.0 | 30.6         | 29.7         | 2.5               | 7.0                        |
| WSR02    | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:36:00 AM | 8.5          | 8.1 | 29.6         | 29.4         | 2.2               | 7.0                        |
| WSR02    | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:36:00 AM | 8.2          | 8.1 | 29.7         | 29.5         | 2.0               | 7.0                        |
| WSR02    | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.8          | 10:35:00 AM | 8.5          | 8.1 | 29.6         | 29.4         | 2.1               | 3.0                        |
| WSR02    | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.8          | 10:35:00 AM | 8.2          | 8.2 | 29.6         | 29.5         | 2.1               | 6.0                        |
| WSR02    | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.5          | 10:34:00 AM | 8.5          | 8.2 | 29.8         | 29.4         | 2.4               | 7.0                        |
| WSR02    | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.5          | 10:34:00 AM | 8.4          | 8.1 | 29.6         | 29.5         | 2.4               | 7.0                        |
| WSR03    | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:49:00 AM | 8.2          | 8.1 | 30.5         | 29.7         | 2.3               | 6.0                        |
| WSR03    | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:49:00 AM | 8.4          | 8.1 | 30.5         | 29.6         | 2.4               | 6.0                        |
| WSR03    | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.0          | 10:48:00 AM | 8.2          | 8.1 | 30.7         | 29.7         | 2.4               | 7.0                        |
| WSR03    | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.0          | 10:48:00 AM | 8.5          | 8.1 | 30.6         | 29.7         | 2.3               | 6.0                        |
| WSR03    | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.9          | 10:47:00 AM | 8.2          | 8.0 | 30.5         | 29.7         | 2.3               | 5.0                        |
| WSR03    | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.9          | 10:47:00 AM | 8.5          | 8.0 | 30.6         | 29.7         | 2.3               | 5.0                        |
| WSR04    | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:02:00 AM | 8.8          | 8.2 | 29.6         | 29.7         | 2.6               | 6.0                        |
| WSR04    | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:02:00 AM | 8.7          | 8.2 | 29.7         | 29.7         | 2.5               | 6.0                        |
| WSR04    | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.5          | 11:01:00 AM | 8.8          | 8.2 | 29.5         | 29.8         | 2.3               | 5.0                        |
| WSR04    | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.5          | 11:01:00 AM | 8.9          | 8.2 | 29.8         | 29.8         | 2.4               | 7.0                        |
| WSR04    | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.0          | 11:00:00 AM | 8.8          | 8.2 | 29.7         | 29.8         | 2.3               | 8.0                        |
| WSR04    | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.0          | 11:00:00 AM | 8.8          | 8.2 | 29.8         | 29.8         | 2.3               | 6.0                        |
| WSR16    | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:06:00 AM | 8.5          | 8.2 | 30.1         | 29.8         | 2.1               | 7.0                        |
| WSR16    | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:06:00 AM | 8.5          | 8.1 | 30.2         | 29.7         | 2.3               | 6.0                        |
| WSR16    | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 7.9          | 11:05:00 AM | 8.5          | 8.1 | 30.1         | 29.8         | 2.5               | 3.0                        |
| WSR16    | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 7.9          | 11:05:00 AM | 8.5          | 8.2 | 30.2         | 29.7         | 2.3               | 2.5                        |
| WSR16    | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 14.7         | 11:04:00 AM | 8.2          | 8.1 | 30.3         | 29.7         | 2.4               | 7.0                        |
| WSR16    | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 14.7         | 11:04:00 AM | 8.3          | 8.1 | 30.0         | 29.8         | 2.5               | 7.0                        |
| WSR33    | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:17:00 AM | 8.5          | 8.0 | 30.7         | 30.2         | 2.1               | 6.0                        |
| WSR33    | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:17:00 AM | 8.5          | 8.1 | 30.9         | 30.2         | 2.4               | 4.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR33    | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.6          | 11:16:00 AM | 8.3          | 8.1 | 30.8         | 30.2         | 2.3               | 5.0                        |
| WSR33    | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.6          | 11:16:00 AM | 8.3          | 8.1 | 30.8         | 30.1         | 2.6               | 6.0                        |
| WSR33    | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.2          | 11:15:00 AM | 8.2          | 8.1 | 30.8         | 30.2         | 2.4               | 3.0                        |
| WSR33    | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.2          | 11:15:00 AM | 8.2          | 8.1 | 30.8         | 30.2         | 2.5               | 6.0                        |
| WSR36    | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:29:00 AM | 8.6          | 8.0 | 30.8         | 30.1         | 2.6               | 4.0                        |
| WSR36    | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:29:00 AM | 8.8          | 8.1 | 30.5         | 30.1         | 2.4               | 4.0                        |
| WSR36    | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.4          | 11:29:00 AM | 8.8          | 8.0 | 30.7         | 30.1         | 2.3               | 10.0                       |
| WSR36    | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.4          | 11:29:00 AM | 8.7          | 8.1 | 30.7         | 30.1         | 2.4               | 8.0                        |
| WSR36    | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 5.8          | 11:28:00 AM | 8.8          | 8.0 | 30.7         | 30.1         | 2.4               | 3.0                        |
| WSR36    | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 5.8          | 11:28:00 AM | 8.6          | 8.0 | 30.6         | 30.1         | 2.4               | 5.0                        |
| WSR37    | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:44:00 AM | 8.5          | 8.2 | 30.3         | 29.8         | 2.1               | 5.0                        |
| WSR37    | 20220903 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:44:00 AM | 8.2          | 8.2 | 30.4         | 29.9         | 2.4               | 5.0                        |
| WSR37    | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.3          | 11:43:00 AM | 8.5          | 8.2 | 30.3         | 29.8         | 1.7               | 4.0                        |
| WSR37    | 20220903 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.3          | 11:43:00 AM | 8.5          | 8.2 | 30.2         | 29.9         | 2.0               | 2.5                        |
| WSR37    | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.5          | 11:42:00 AM | 8.2          | 8.2 | 30.2         | 29.8         | 2.1               | 2.5                        |
| WSR37    | 20220903 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.5          | 11:42:00 AM | 8.4          | 8.2 | 30.2         | 29.9         | 2.2               | 4.0                        |
| CE       | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:25:00 PM  | 8.4          | 8.2 | 31.8         | 29.7         | 2.7               | 6.0                        |
| CE       | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:25:00 PM  | 8.4          | 8.2 | 31.8         | 29.7         | 2.9               | 6.0                        |
| CE       | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 11.4         | 5:24:00 PM  | 8.5          | 8.2 | 31.9         | 29.7         | 2.9               | 7.0                        |
| CE       | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 11.4         | 5:24:00 PM  | 8.4          | 8.2 | 31.7         | 29.7         | 3.0               | 4.0                        |
| CE       | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 21.7         | 5:23:00 PM  | 8.4          | 8.2 | 31.8         | 29.7         | 3.0               | 9.0                        |
| CE       | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 21.7         | 5:23:00 PM  | 8.5          | 8.2 | 31.7         | 29.8         | 3.2               | 7.0                        |
| CF       | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 2:49:00 PM  | 8.4          | 8.3 | 31.9         | 29.9         | 3.3               | 7.0                        |
| CF       | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 2:49:00 PM  | 8.3          | 8.3 | 32.3         | 29.9         | 3.2               | 8.0                        |
| CF       | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 9.6          | 2:48:00 PM  | 8.4          | 8.3 | 32.0         | 29.9         | 3.5               | 7.0                        |
| CF       | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 9.6          | 2:48:00 PM  | 8.4          | 8.3 | 32.1         | 30.0         | 3.4               | 5.0                        |
| CF       | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 18.1         | 2:47:00 PM  | 8.5          | 8.3 | 32.0         | 29.9         | 3.4               | 5.0                        |
| CF       | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 18.1         | 2:47:00 PM  | 8.4          | 8.3 | 32.3         | 30.0         | 3.6               | 8.0                        |
| WSR01    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 3:12:00 PM  | 8.6          | 8.2 | 31.6         | 29.7         | 2.5               | 8.0                        |
| WSR01    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 3:12:00 PM  | 8.5          | 8.2 | 31.6         | 29.7         | 2.2               | 6.0                        |
| WSR01    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.6          | 3:11:00 PM  | 8.7          | 8.3 | 31.4         | 29.8         | 2.2               | 7.0                        |
| WSR01    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.6          | 3:11:00 PM  | 8.6          | 8.3 | 31.4         | 29.8         | 2.1               | 6.0                        |
| WSR01    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 8.1          | 3:10:00 PM  | 8.5          | 8.2 | 31.7         | 29.8         | 2.3               | 7.0                        |
| WSR01    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 8.1          | 3:10:00 PM  | 8.5          | 8.2 | 31.7         | 29.8         | 2.5               | 8.0                        |
| WSR02    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 3:30:00 PM  | 9.0          | 8.3 | 32.1         | 30.5         | 2.4               | 10.0                       |
| WSR02    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 3:30:00 PM  | 8.8          | 8.3 | 32.1         | 30.5         | 2.1               | 7.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR02    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.6          | 3:29:00 PM | 8.9          | 8.3 | 32.4         | 30.5         | 2.2               | 2.5                        |
| WSR02    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.6          | 3:29:00 PM | 8.9          | 8.3 | 32.2         | 30.5         | 2.5               | 2.5                        |
| WSR02    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 8.2          | 3:28:00 PM | 8.9          | 8.3 | 32.2         | 30.5         | 2.0               | 2.5                        |
| WSR02    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 8.2          | 3:28:00 PM | 8.9          | 8.3 | 32.3         | 30.5         | 2.0               | 2.5                        |
| WSR03    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 3:43:00 PM | 8.3          | 8.3 | 31.9         | 29.8         | 2.0               | 2.5                        |
| WSR03    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 3:43:00 PM | 8.5          | 8.3 | 31.8         | 29.8         | 2.2               | 2.5                        |
| WSR03    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.8          | 3:42:00 PM | 8.4          | 8.3 | 31.8         | 29.8         | 2.4               | 2.5                        |
| WSR03    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.8          | 3:42:00 PM | 8.3          | 8.3 | 31.9         | 29.8         | 2.3               | 4.0                        |
| WSR03    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.6          | 3:41:00 PM | 8.5          | 8.3 | 31.9         | 29.8         | 2.6               | 2.5                        |
| WSR03    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.6          | 3:41:00 PM | 8.3          | 8.2 | 31.8         | 29.8         | 2.4               | 2.5                        |
| WSR04    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 3:56:00 PM | 8.4          | 8.3 | 32.3         | 30.1         | 2.4               | 2.5                        |
| WSR04    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 3:56:00 PM | 8.4          | 8.2 | 32.4         | 30.1         | 2.4               | 2.5                        |
| WSR04    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.8          | 3:55:00 PM | 8.4          | 8.3 | 32.2         | 30.1         | 2.2               | 2.5                        |
| WSR04    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.8          | 3:55:00 PM | 8.3          | 8.2 | 32.2         | 30.0         | 2.4               | 2.5                        |
| WSR04    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.5          | 3:54:00 PM | 8.4          | 8.2 | 32.1         | 30.0         | 2.1               | 2.5                        |
| WSR04    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.5          | 3:54:00 PM | 8.3          | 8.3 | 32.4         | 30.0         | 2.4               | 3.0                        |
| WSR16    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:02:00 PM | 8.9          | 8.3 | 31.6         | 30.0         | 2.4               | 2.5                        |
| WSR16    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:02:00 PM | 9.0          | 8.2 | 31.5         | 30.0         | 2.3               | 3.0                        |
| WSR16    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 8.6          | 5:01:00 PM | 8.8          | 8.3 | 31.5         | 30.1         | 2.0               | 2.5                        |
| WSR16    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 8.6          | 5:01:00 PM | 8.8          | 8.3 | 31.5         | 30.1         | 1.8               | 3.0                        |
| WSR16    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 16.2         | 5:00:00 PM | 8.6          | 8.3 | 31.5         | 30.1         | 2.2               | 6.0                        |
| WSR16    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 16.2         | 5:00:00 PM | 8.9          | 8.3 | 31.5         | 30.1         | 2.0               | 7.0                        |
| WSR33    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 4:11:00 PM | 8.8          | 8.2 | 31.9         | 29.2         | 2.3               | 9.0                        |
| WSR33    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 4:11:00 PM | 9.0          | 8.3 | 31.8         | 29.3         | 2.6               | 6.0                        |
| WSR33    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.5          | 4:10:00 PM | 8.9          | 8.2 | 32.0         | 29.3         | 2.1               | 7.0                        |
| WSR33    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.5          | 4:10:00 PM | 8.8          | 8.2 | 31.7         | 29.3         | 2.2               | 9.0                        |
| WSR33    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.0          | 4:09:00 PM | 8.7          | 8.2 | 31.9         | 29.3         | 2.2               | 2.5                        |
| WSR33    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.0          | 4:09:00 PM | 8.8          | 8.2 | 31.8         | 29.3         | 2.2               | 3.0                        |
| WSR36    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 4:23:00 PM | 8.6          | 8.3 | 31.6         | 29.9         | 1.9               | 3.0                        |
| WSR36    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 4:23:00 PM | 8.9          | 8.3 | 31.7         | 29.8         | 2.1               | 6.0                        |
| WSR36    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.3          | 4:23:00 PM | 8.8          | 8.3 | 31.7         | 29.9         | 1.8               | 5.0                        |
| WSR36    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.3          | 4:23:00 PM | 8.7          | 8.2 | 31.7         | 29.8         | 1.8               | 7.0                        |
| WSR36    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 5.6          | 4:22:00 PM | 8.9          | 8.3 | 32.0         | 29.8         | 1.9               | 6.0                        |
| WSR36    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 5.6          | 4:22:00 PM | 8.9          | 8.3 | 31.9         | 29.8         | 2.0               | 7.0                        |
| WSR37    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 4:38:00 PM | 8.2          | 8.3 | 31.6         | 29.7         | 2.1               | 6.0                        |
| WSR37    | 20220906 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 4:38:00 PM | 8.2          | 8.3 | 31.5         | 29.7         | 1.9               | 6.0                        |

|         |          | Weather | Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|---------|----------|---------|-----------|-----------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR37 2 | 20220906 | Cloudy  | Moderate  | Mid-Flood | Middle         | 4.5          | 4:37:00 PM | 8.3          | 8.3 | 31.5         | 29.7         | 2.6               | 7.0                        |
| WSR37 2 | 20220906 | Cloudy  | Moderate  | Mid-Flood | Middle         | 4.5          | 4:37:00 PM | 8.2          | 8.3 | 31.3         | 29.7         | 2.4               | 8.0                        |
| WSR37 2 | 20220906 | Cloudy  | Moderate  | Mid-Flood | Bottom         | 7.9          | 4:36:00 PM | 8.1          | 8.3 | 31.5         | 29.7         | 2.4               | 6.0                        |
| WSR37 2 | 20220906 | Cloudy  | Moderate  | Mid-Flood | Bottom         | 7.9          | 4:36:00 PM | 8.1          | 8.3 | 31.5         | 29.6         | 2.4               | 6.0                        |
| CE 2    | 20220908 | Cloudy  | Moderate  | Mid-Flood | Surface        | 1.0          | 6:48:00 PM | 8.7          | 8.1 | 29.3         | 28.0         | 2.9               | 2.5                        |
| CE 2    | 20220908 | Cloudy  | Moderate  | Mid-Flood | Surface        | 1.0          | 6:48:00 PM | 8.6          | 8.1 | 29.1         | 28.0         | 3.0               | 4.0                        |
| CE 2    | 20220908 | Cloudy  | Moderate  | Mid-Flood | Middle         | 10.6         | 6:47:00 PM | 8.5          | 8.1 | 29.2         | 28.0         | 3.0               | 3.0                        |
| CE 2    | 20220908 | Cloudy  | Moderate  | Mid-Flood | Middle         | 10.6         | 6:47:00 PM | 8.6          | 8.1 | 29.2         | 28.1         | 3.0               | 2.5                        |
| CE 2    | 20220908 | Cloudy  | Moderate  | Mid-Flood | Bottom         | 20.2         | 6:46:00 PM | 8.7          | 8.1 | 29.3         | 28.0         | 3.2               | 7.0                        |
| CE 2    | 20220908 | Cloudy  | Moderate  | Mid-Flood | Bottom         | 20.2         | 6:46:00 PM | 8.6          | 8.1 | 29.0         | 28.0         | 3.0               | 7.0                        |
| CF 2    | 20220908 | Cloudy  | Moderate  | Mid-Flood | Surface        | 1.0          | 4:13:00 PM | 8.6          | 8.1 | 29.5         | 28.6         | 3.5               | 8.0                        |
| CF 2    | 20220908 | Cloudy  | Moderate  | Mid-Flood | Surface        | 1.0          | 4:13:00 PM | 8.7          | 8.1 | 29.7         | 28.6         | 3.3               | 6.0                        |
| CF 2    | 20220908 | Cloudy  | Moderate  | Mid-Flood | Middle         | 9.6          | 4:12:00 PM | 8.6          | 8.2 | 29.7         | 28.5         | 3.8               | 6.0                        |
| CF 2    | 20220908 | Cloudy  | Moderate  | Mid-Flood | Middle         | 9.6          | 4:12:00 PM | 8.6          | 8.1 | 29.6         | 28.6         | 3.3               | 8.0                        |
| CF 2    | 20220908 | Cloudy  | Moderate  | Mid-Flood | Bottom         | 18.2         | 4:11:00 PM | 8.7          | 8.1 | 29.4         | 28.6         | 3.9               | 8.0                        |
| CF 2    | 20220908 | Cloudy  | Moderate  | Mid-Flood | Bottom         | 18.2         | 4:11:00 PM | 8.7          | 8.2 | 29.4         | 28.5         | 3.7               | 9.0                        |
| WSR01 2 | 20220908 | Cloudy  | Moderate  | Mid-Flood | Surface        | 1.0          | 4:36:00 PM | 8.3          | 8.1 | 30.1         | 28.5         | 2.8               | 5.0                        |
| WSR01 2 | 20220908 | Cloudy  | Moderate  | Mid-Flood | Surface        | 1.0          | 4:36:00 PM | 8.3          | 8.1 | 29.9         | 28.5         | 2.5               | 6.0                        |
| WSR01 2 | 20220908 | Cloudy  | Moderate  | Mid-Flood | Middle         | 4.6          | 4:35:00 PM | 8.5          | 8.1 | 29.9         | 28.5         | 2.4               | 6.0                        |
| WSR01 2 | 20220908 | Cloudy  | Moderate  | Mid-Flood | Middle         | 4.6          | 4:35:00 PM | 8.5          | 8.1 | 30.1         | 28.5         | 2.0               | 6.0                        |
| WSR01 2 | 20220908 | Cloudy  | Moderate  | Mid-Flood | Bottom         | 8.1          | 4:34:00 PM | 8.4          | 8.1 | 30.0         | 28.5         | 2.2               | 6.0                        |
| WSR01 2 | 20220908 | Cloudy  | Moderate  | Mid-Flood | Bottom         | 8.1          | 4:34:00 PM | 8.4          | 8.1 | 30.0         | 28.5         | 2.3               | 6.0                        |
| WSR02 2 | 20220908 | Cloudy  | Moderate  | Mid-Flood | Surface        | 1.0          | 4:53:00 PM | 8.3          | 8.3 | 29.2         | 28.0         | 2.1               | 7.0                        |
| WSR02 2 | 20220908 | Cloudy  | Moderate  | Mid-Flood | Surface        | 1.0          | 4:53:00 PM | 8.3          | 8.2 | 29.1         | 28.1         | 2.3               | 6.0                        |
| WSR02 2 | 20220908 | Cloudy  | Moderate  | Mid-Flood | Middle         | 4.9          | 4:52:00 PM | 8.4          | 8.3 | 29.0         | 28.0         | 2.3               | 2.5                        |
| WSR02 2 | 20220908 | Cloudy  | Moderate  | Mid-Flood | Middle         | 4.9          | 4:52:00 PM | 8.3          | 8.2 | 29.2         | 28.0         | 2.2               | 4.0                        |
| WSR02 2 | 20220908 | Cloudy  | Moderate  | Mid-Flood | Bottom         | 8.8          | 4:51:00 PM | 8.4          | 8.2 | 29.3         | 28.1         | 2.1               | 2.5                        |
| WSR02 2 | 20220908 | Cloudy  | Moderate  | Mid-Flood | Bottom         | 8.8          | 4:51:00 PM | 8.3          | 8.2 | 29.1         | 28.1         | 2.1               | 3.0                        |
| WSR03 2 | 20220908 | Cloudy  | Moderate  | Mid-Flood | Surface        | 1.0          | 5:06:00 PM | 8.8          | 8.1 | 30.3         | 28.3         | 2.4               | 2.5                        |
|         | 20220908 | Cloudy  | Moderate  | Mid-Flood | Surface        | 1.0          | 5:06:00 PM | 8.8          | 8.1 | 30.1         | 28.3         | 2.5               | 3.0                        |
| WSR03 2 | 20220908 | Cloudy  | Moderate  | Mid-Flood | Middle         | 3.9          | 5:05:00 PM | 8.9          | 8.1 | 30.2         | 28.4         | 2.2               | 2.5                        |
|         | 20220908 | Cloudy  | Moderate  | Mid-Flood | Middle         | 3.9          | 5:05:00 PM | 8.9          | 8.1 | 30.3         | 28.3         | 2.1               | 3.0                        |
|         | 20220908 | Cloudy  | Moderate  | Mid-Flood | Bottom         | 6.8          | 5:04:00 PM | 8.8          | 8.1 | 30.2         | 28.4         | 2.3               | 2.5                        |
|         | 20220908 | Cloudy  | Moderate  | Mid-Flood | Bottom         | 6.8          | 5:04:00 PM | 8.8          | 8.1 | 30.2         | 28.4         | 2.2               | 4.0                        |
|         | 20220908 | Cloudy  | Moderate  | Mid-Flood | Surface        | 1.0          | 5:20:00 PM | 8.1          | 8.1 | 29.3         | 28.0         | 2.2               | 2.5                        |
|         | 20220908 | Cloudy  | Moderate  | Mid-Flood | Surface        | 1.0          | 5:20:00 PM | 8.1          | 8.1 | 29.3         | 28.0         | 2.1               | 4.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR04    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.6          | 5:19:00 PM | 8.2          | 8.1 | 29.6         | 28.0         | 2.1               | 4.0                        |
| WSR04    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.6          | 5:19:00 PM | 8.1          | 8.1 | 29.4         | 28.0         | 2.2               | 4.0                        |
| WSR04    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.2          | 5:18:00 PM | 8.1          | 8.1 | 29.4         | 28.0         | 2.1               | 7.0                        |
| WSR04    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.2          | 5:18:00 PM | 8.1          | 8.1 | 29.4         | 28.0         | 2.1               | 5.0                        |
| WSR16    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:26:00 PM | 8.5          | 8.1 | 29.3         | 28.3         | 2.5               | 2.5                        |
| WSR16    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:26:00 PM | 8.7          | 8.1 | 29.5         | 28.3         | 2.2               | 3.0                        |
| WSR16    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Middle         | 7.6          | 6:25:00 PM | 8.5          | 8.1 | 29.5         | 28.3         | 2.4               | 4.0                        |
| WSR16    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Middle         | 7.6          | 6:25:00 PM | 8.5          | 8.0 | 29.3         | 28.3         | 2.2               | 6.0                        |
| WSR16    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 14.2         | 6:24:00 PM | 8.7          | 8.1 | 29.4         | 28.3         | 2.3               | 5.0                        |
| WSR16    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 14.2         | 6:24:00 PM | 8.7          | 8.1 | 29.5         | 28.3         | 2.4               | 4.0                        |
| WSR33    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:35:00 PM | 8.7          | 8.2 | 29.4         | 28.0         | 2.2               | 5.0                        |
| WSR33    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:35:00 PM | 8.8          | 8.2 | 29.7         | 28.0         | 2.2               | 8.0                        |
| WSR33    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.8          | 5:34:00 PM | 8.8          | 8.3 | 29.5         | 28.0         | 2.0               | 11.0                       |
| WSR33    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.8          | 5:34:00 PM | 8.8          | 8.2 | 29.5         | 28.0         | 2.1               | 9.0                        |
| WSR33    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.6          | 5:33:00 PM | 8.9          | 8.3 | 29.5         | 28.0         | 2.2               | 8.0                        |
| WSR33    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.6          | 5:33:00 PM | 8.8          | 8.2 | 29.6         | 28.0         | 2.2               | 8.0                        |
| WSR36    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:49:00 PM | 8.5          | 8.2 | 29.4         | 27.8         | 2.0               | 7.0                        |
| WSR36    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:49:00 PM | 8.6          | 8.3 | 29.4         | 27.8         | 2.2               | 7.0                        |
| WSR36    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.9          | 5:49:00 PM | 8.6          | 8.2 | 29.4         | 27.9         | 2.1               | 7.0                        |
| WSR36    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.9          | 5:49:00 PM | 8.6          | 8.3 | 29.6         | 27.8         | 2.2               | 10.0                       |
| WSR36    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.7          | 5:48:00 PM | 8.5          | 8.2 | 29.6         | 27.9         | 2.1               | 8.0                        |
| WSR36    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.7          | 5:48:00 PM | 8.7          | 8.3 | 29.7         | 27.8         | 2.0               | 8.0                        |
| WSR37    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:04:00 PM | 8.5          | 8.1 | 29.9         | 28.1         | 2.1               | 8.0                        |
| WSR37    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:04:00 PM | 8.6          | 8.1 | 30.1         | 28.1         | 2.1               | 9.0                        |
| WSR37    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.3          | 6:03:00 PM | 8.5          | 8.1 | 30.1         | 28.1         | 2.4               | 9.0                        |
| WSR37    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.3          | 6:03:00 PM | 8.5          | 8.1 | 30.2         | 28.1         | 2.3               | 6.0                        |
| WSR37    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 7.5          | 6:02:00 PM | 8.5          | 8.1 | 30.1         | 28.1         | 2.3               | 8.0                        |
| WSR37    | 20220908 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 7.5          | 6:02:00 PM | 8.5          | 8.1 | 30.1         | 28.1         | 2.5               | 5.0                        |
| CE       | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 6:29:00 PM | 8.4          | 8.1 | 29.7         | 29.6         | 2.8               | 6.0                        |
| CE       | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 6:29:00 PM | 8.4          | 8.2 | 29.7         | 29.6         | 2.9               | 5.0                        |
| CE       | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 10.2         | 6:28:00 PM | 8.4          | 8.2 | 29.5         | 29.6         | 2.9               | 2.5                        |
| CE       | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 10.2         | 6:28:00 PM | 8.4          | 8.2 | 29.5         | 29.5         | 3.2               | 3.0                        |
| CE       | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 19.4         | 6:27:00 PM | 8.6          | 8.2 | 29.6         | 29.6         | 3.2               | 5.0                        |
| CE       | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 19.4         | 6:27:00 PM | 8.5          | 8.2 | 29.8         | 29.5         | 3.4               | 6.0                        |
| CF       | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 3:52:00 PM | 8.5          | 8.2 | 29.7         | 30.0         | 3.3               | 3.0                        |
| CF       | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 3:52:00 PM | 8.4          | 8.2 | 29.5         | 30.0         | 3.7               | 2.5                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| CF       | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 9.7          | 3:51:00 PM | 8.5          | 8.2 | 29.4         | 30.0         | 3.5               | 4.0                        |
| CF       | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 9.7          | 3:51:00 PM | 8.5          | 8.2 | 29.6         | 30.1         | 3.7               | 5.0                        |
| CF       | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 18.3         | 3:50:00 PM | 8.5          | 8.2 | 29.7         | 30.1         | 4.0               | 6.0                        |
| CF       | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 18.3         | 3:50:00 PM | 8.5          | 8.2 | 29.4         | 30.1         | 3.9               | 4.0                        |
| WSR01    | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:16:00 PM | 8.4          | 8.2 | 29.5         | 30.2         | 2.0               | 2.5                        |
| WSR01    | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:16:00 PM | 8.3          | 8.2 | 29.4         | 30.2         | 2.1               | 3.0                        |
| WSR01    | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.3          | 4:15:00 PM | 8.3          | 8.2 | 29.5         | 30.2         | 2.4               | 6.0                        |
| WSR01    | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.3          | 4:15:00 PM | 8.3          | 8.2 | 29.6         | 30.2         | 2.3               | 8.0                        |
| WSR01    | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.5          | 4:14:00 PM | 8.4          | 8.2 | 29.6         | 30.2         | 2.2               | 6.0                        |
| WSR01    | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.5          | 4:14:00 PM | 8.2          | 8.2 | 29.6         | 30.3         | 2.1               | 7.0                        |
| WSR02    | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:34:00 PM | 8.3          | 8.2 | 30.3         | 30.0         | 2.2               | 6.0                        |
| WSR02    | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:34:00 PM | 8.2          | 8.1 | 30.2         | 30.0         | 1.9               | 5.0                        |
| WSR02    | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.7          | 4:33:00 PM | 8.2          | 8.2 | 30.1         | 29.9         | 2.4               | 6.0                        |
| WSR02    | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.7          | 4:33:00 PM | 8.3          | 8.2 | 30.1         | 29.9         | 2.2               | 6.0                        |
| WSR02    | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.4          | 4:32:00 PM | 8.2          | 8.2 | 30.1         | 29.9         | 2.1               | 7.0                        |
| WSR02    | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.4          | 4:32:00 PM | 8.2          | 8.2 | 30.1         | 29.9         | 2.0               | 4.0                        |
| WSR03    | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:47:00 PM | 8.8          | 8.2 | 29.9         | 30.0         | 2.1               | 6.0                        |
| WSR03    | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:47:00 PM | 8.7          | 8.2 | 30.1         | 30.0         | 2.3               | 7.0                        |
| WSR03    | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.2          | 4:46:00 PM | 8.9          | 8.2 | 30.1         | 30.0         | 1.9               | 5.0                        |
| WSR03    | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.2          | 4:46:00 PM | 8.9          | 8.2 | 30.1         | 30.0         | 2.0               | 4.0                        |
| WSR03    | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.3          | 4:45:00 PM | 8.8          | 8.3 | 30.0         | 30.0         | 2.1               | 4.0                        |
| WSR03    | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.3          | 4:45:00 PM | 8.8          | 8.3 | 30.0         | 30.1         | 2.2               | 4.0                        |
| WSR04    | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:02:00 PM | 8.8          | 8.2 | 29.5         | 29.5         | 2.3               | 5.0                        |
| WSR04    | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:02:00 PM | 8.8          | 8.2 | 29.4         | 29.6         | 2.4               | 6.0                        |
| WSR04    | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.6          | 5:01:00 PM | 8.7          | 8.2 | 29.5         | 29.5         | 2.4               | 6.0                        |
| WSR04    | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.6          | 5:01:00 PM | 8.8          | 8.2 | 29.4         | 29.6         | 2.2               | 6.0                        |
| WSR04    | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.2          | 5:00:00 PM | 8.9          | 8.2 | 29.5         | 29.6         | 2.2               | 6.0                        |
| WSR04    | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.2          | 5:00:00 PM | 8.8          | 8.3 | 29.5         | 29.5         | 2.4               | 6.0                        |
| WSR16    | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 6:06:00 PM | 8.9          | 8.1 | 30.2         | 30.0         | 2.4               | 6.0                        |
| WSR16    | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 6:06:00 PM | 8.8          | 8.1 | 30.2         | 30.0         | 2.5               | 7.0                        |
| WSR16    | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 7.7          | 6:05:00 PM | 8.8          | 8.2 | 30.1         | 30.0         | 2.3               | 4.0                        |
| WSR16    | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 7.7          | 6:05:00 PM | 8.8          | 8.2 | 30.3         | 30.0         | 2.3               | 6.0                        |
| WSR16    | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 14.3         | 6:04:00 PM | 8.9          | 8.1 | 30.2         | 29.9         | 2.3               | 5.0                        |
| WSR16    | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 14.3         | 6:04:00 PM | 8.7          | 8.2 | 30.1         | 29.9         | 2.4               | 5.0                        |
| WSR33    | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:16:00 PM | 8.8          | 8.1 | 30.3         | 29.6         | 2.3               | 7.0                        |
| WSR33    | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:16:00 PM | 8.8          | 8.2 | 30.3         | 29.6         | 2.2               | 6.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR33    | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.9          | 5:15:00 PM  | 8.9          | 8.2 | 30.1         | 29.6         | 2.4               | 6.0                        |
| WSR33    | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.9          | 5:15:00 PM  | 8.9          | 8.2 | 30.2         | 29.6         | 2.2               | 5.0                        |
| WSR33    | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.7          | 5:14:00 PM  | 8.7          | 8.2 | 30.3         | 29.7         | 2.1               | 7.0                        |
| WSR33    | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.7          | 5:14:00 PM  | 8.9          | 8.2 | 30.2         | 29.6         | 2.0               | 6.0                        |
| WSR36    | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:29:00 PM  | 8.7          | 8.2 | 30.2         | 29.5         | 2.6               | 7.0                        |
| WSR36    | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:29:00 PM  | 8.7          | 8.1 | 30.3         | 29.5         | 2.4               | 6.0                        |
| WSR36    | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.3          | 5:29:00 PM  | 8.6          | 8.2 | 30.3         | 29.6         | 2.6               | 7.0                        |
| WSR36    | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.3          | 5:29:00 PM  | 8.6          | 8.2 | 30.3         | 29.5         | 2.4               | 8.0                        |
| WSR36    | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 5.5          | 5:28:00 PM  | 8.6          | 8.1 | 30.2         | 29.5         | 2.1               | 8.0                        |
| WSR36    | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 5.5          | 5:28:00 PM  | 8.6          | 8.2 | 30.2         | 29.5         | 2.2               | 6.0                        |
| WSR37    | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:44:00 PM  | 8.7          | 8.1 | 30.3         | 30.1         | 2.0               | 7.0                        |
| WSR37    | 20220910 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:44:00 PM  | 8.8          | 8.1 | 30.3         | 30.2         | 2.3               | 6.0                        |
| WSR37    | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.4          | 5:43:00 PM  | 8.8          | 8.1 | 30.2         | 30.1         | 2.5               | 9.0                        |
| WSR37    | 20220910 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.4          | 5:43:00 PM  | 8.9          | 8.1 | 30.2         | 30.0         | 2.7               | 5.0                        |
| WSR37    | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.8          | 5:42:00 PM  | 8.8          | 8.1 | 30.2         | 30.1         | 2.6               | 3.0                        |
| WSR37    | 20220910 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.8          | 5:42:00 PM  | 8.7          | 8.1 | 30.1         | 30.1         | 2.4               | 6.0                        |
| CE       | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:31:00 AM | 8.2          | 8.2 | 30.9         | 29.9         | 3.4               | 2.5                        |
| CE       | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:31:00 AM | 8.3          | 8.2 | 30.8         | 29.8         | 3.4               | 2.5                        |
| CE       | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 11.1         | 10:30:00 AM | 8.2          | 8.2 | 30.8         | 29.8         | 3.2               | 2.5                        |
| CE       | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 11.1         | 10:30:00 AM | 8.2          | 8.2 | 30.9         | 29.8         | 3.3               | 2.5                        |
| CE       | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 21.2         | 10:29:00 AM | 8.3          | 8.2 | 30.9         | 29.8         | 3.2               | 2.5                        |
| CE       | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 21.2         | 10:29:00 AM | 8.3          | 8.2 | 30.8         | 30.0         | 3.2               | 3.0                        |
| CF       | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:02:00 AM  | 8.3          | 8.1 | 31.1         | 30.3         | 3.4               | 2.5                        |
| CF       | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:02:00 AM  | 8.3          | 8.1 | 31.1         | 30.3         | 3.4               | 4.0                        |
| CF       | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 10.9         | 8:01:00 AM  | 8.3          | 8.1 | 31.1         | 30.2         | 3.6               | 9.0                        |
| CF       | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 10.9         | 8:01:00 AM  | 8.3          | 8.1 | 31.2         | 30.3         | 3.4               | 8.0                        |
| CF       | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 20.8         | 8:00:00 AM  | 8.3          | 8.1 | 31.0         | 30.2         | 4.0               | 4.0                        |
| CF       | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 20.8         | 8:00:00 AM  | 8.3          | 8.1 | 31.2         | 30.2         | 3.9               | 6.0                        |
| WSR01    | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:24:00 AM  | 8.7          | 8.3 | 30.4         | 30.0         | 2.4               | 2.5                        |
| WSR01    | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:24:00 AM  | 8.8          | 8.3 | 30.4         | 30.0         | 2.2               | 2.5                        |
| WSR01    | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.4          | 8:23:00 AM  | 8.7          | 8.3 | 30.3         | 29.9         | 2.0               | 2.5                        |
| WSR01    | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.4          | 8:23:00 AM  | 8.7          | 8.3 | 30.2         | 29.9         | 2.3               | 2.5                        |
| WSR01    | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.7          | 8:22:00 AM  | 8.7          | 8.3 | 30.3         | 30.0         | 2.2               | 2.5                        |
| WSR01    | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.7          | 8:22:00 AM  | 8.8          | 8.3 | 30.2         | 29.8         | 2.3               | 2.5                        |
| WSR02    | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:42:00 AM  | 8.4          | 8.1 | 31.1         | 30.1         | 2.3               | 2.5                        |
| WSR02    | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:42:00 AM  | 8.3          | 8.2 | 31.1         | 29.9         | 2.1               | 2.5                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR02    | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.9          | 8:41:00 AM  | 8.4          | 8.1 | 31.1         | 30.0         | 2.4               | 2.5                        |
| WSR02    | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.9          | 8:41:00 AM  | 8.5          | 8.1 | 31.0         | 30.0         | 2.4               | 2.5                        |
| WSR02    | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.7          | 8:40:00 AM  | 8.4          | 8.1 | 31.0         | 30.0         | 2.2               | 2.5                        |
| WSR02    | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.7          | 8:40:00 AM  | 8.4          | 8.2 | 31.1         | 30.0         | 2.1               | 2.5                        |
| WSR03    | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:55:00 AM  | 8.3          | 8.2 | 31.0         | 29.9         | 2.1               | 2.5                        |
| WSR03    | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:55:00 AM  | 8.3          | 8.2 | 30.9         | 30.0         | 2.1               | 2.5                        |
| WSR03    | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.2          | 8:54:00 AM  | 8.3          | 8.2 | 30.9         | 29.9         | 2.4               | 2.5                        |
| WSR03    | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.2          | 8:54:00 AM  | 8.3          | 8.1 | 30.9         | 29.9         | 2.4               | 2.5                        |
| WSR03    | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.3          | 8:53:00 AM  | 8.3          | 8.1 | 31.0         | 30.0         | 2.3               | 2.5                        |
| WSR03    | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.3          | 8:53:00 AM  | 8.4          | 8.2 | 30.9         | 30.0         | 2.5               | 2.5                        |
| WSR04    | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:07:00 AM  | 8.3          | 8.2 | 31.0         | 30.2         | 1.7               | 2.5                        |
| WSR04    | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:07:00 AM  | 8.3          | 8.1 | 31.0         | 30.3         | 1.9               | 2.5                        |
| WSR04    | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.9          | 9:06:00 AM  | 8.3          | 8.1 | 30.8         | 30.3         | 1.9               | 2.5                        |
| WSR04    | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.9          | 9:06:00 AM  | 8.2          | 8.1 | 30.9         | 30.3         | 2.0               | 2.5                        |
| WSR04    | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.8          | 9:05:00 AM  | 8.3          | 8.1 | 30.9         | 30.2         | 1.8               | 2.5                        |
| WSR04    | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.8          | 9:05:00 AM  | 8.2          | 8.2 | 30.9         | 30.2         | 1.9               | 2.5                        |
| WSR16    | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:09:00 AM | 8.6          | 8.3 | 30.5         | 30.1         | 2.5               | 2.5                        |
| WSR16    | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:09:00 AM | 8.7          | 8.3 | 30.6         | 30.0         | 2.5               | 2.5                        |
| WSR16    | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 7.7          | 10:08:00 AM | 8.6          | 8.3 | 30.7         | 30.1         | 2.1               | 2.5                        |
| WSR16    | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 7.7          | 10:08:00 AM | 8.6          | 8.3 | 30.6         | 30.1         | 2.3               | 3.0                        |
| WSR16    | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 14.3         | 10:07:00 AM | 8.7          | 8.3 | 30.5         | 30.2         | 2.2               | 2.5                        |
| WSR16    | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 14.3         | 10:07:00 AM | 8.6          | 8.3 | 30.5         | 30.1         | 2.2               | 2.5                        |
| WSR33    | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:20:00 AM  | 8.4          | 8.3 | 31.3         | 30.4         | 2.0               | 2.5                        |
| WSR33    | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:20:00 AM  | 8.4          | 8.3 | 31.3         | 30.5         | 2.4               | 3.0                        |
| WSR33    | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.9          | 9:19:00 AM  | 8.5          | 8.3 | 31.3         | 30.4         | 2.3               | 2.5                        |
| WSR33    | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.9          | 9:19:00 AM  | 8.3          | 8.3 | 31.3         | 30.4         | 2.3               | 4.0                        |
| WSR33    | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.7          | 9:18:00 AM  | 8.3          | 8.3 | 31.2         | 30.4         | 2.2               | 3.0                        |
| WSR33    | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.7          | 9:18:00 AM  | 8.5          | 8.3 | 31.4         | 30.5         | 2.3               | 3.0                        |
| WSR36    | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:32:00 AM  | 8.3          | 8.2 | 31.2         | 30.0         | 2.1               | 2.5                        |
| WSR36    | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:32:00 AM  | 8.3          | 8.2 | 31.2         | 29.9         | 2.0               | 2.5                        |
| WSR36    | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.4          | 9:32:00 AM  | 8.3          | 8.2 | 31.2         | 29.9         | 2.4               | 2.5                        |
| WSR36    | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.4          | 9:32:00 AM  | 8.3          | 8.2 | 31.3         | 29.9         | 2.3               | 2.5                        |
| WSR36    | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 5.7          | 9:31:00 AM  | 8.2          | 8.2 | 31.3         | 29.8         | 2.2               | 2.5                        |
| WSR36    | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 5.7          | 9:31:00 AM  | 8.3          | 8.2 | 31.2         | 30.0         | 2.2               | 2.5                        |
| WSR37    | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:47:00 AM  | 8.6          | 8.1 | 30.5         | 29.9         | 2.3               | 2.5                        |
| WSR37    | 20220913 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:47:00 AM  | 8.7          | 8.1 | 30.5         | 30.0         | 2.4               | 3.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR37    | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.2          | 9:46:00 AM  | 8.6          | 8.1 | 30.5         | 29.9         | 2.1               | 2.5                        |
| WSR37    | 20220913 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.2          | 9:46:00 AM  | 8.7          | 8.1 | 30.6         | 30.0         | 2.4               | 2.5                        |
| WSR37    | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.4          | 9:45:00 AM  | 8.6          | 8.1 | 30.6         | 29.9         | 2.0               | 2.5                        |
| WSR37    | 20220913 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.4          | 9:45:00 AM  | 8.7          | 8.1 | 30.6         | 29.9         | 2.0               | 2.5                        |
| CE       | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:40:00 AM | 9.9          | 8.3 | 33.1         | 30.7         | 3.0               | 8.0                        |
| CE       | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:40:00 AM | 9.7          | 8.3 | 33.1         | 30.8         | 3.0               | 5.0                        |
| CE       | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 11.6         | 10:39:00 AM | 9.8          | 8.4 | 33.0         | 30.7         | 3.0               | 6.0                        |
| CE       | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 11.6         | 10:39:00 AM | 9.9          | 8.3 | 33.2         | 30.7         | 3.1               | 6.0                        |
| CE       | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 22.2         | 10:38:00 AM | 9.8          | 8.3 | 33.2         | 30.8         | 3.8               | 6.0                        |
| CE       | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 22.2         | 10:38:00 AM | 9.8          | 8.4 | 33.2         | 30.8         | 3.3               | 7.0                        |
| CF       | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:02:00 AM  | 9.4          | 8.4 | 31.5         | 30.4         | 3.6               | 7.0                        |
| CF       | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:02:00 AM  | 9.4          | 8.4 | 31.5         | 30.4         | 3.8               | 6.0                        |
| CF       | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 10.7         | 8:01:00 AM  | 9.3          | 8.4 | 31.6         | 30.4         | 3.6               | 7.0                        |
| CF       | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 10.7         | 8:01:00 AM  | 9.3          | 8.4 | 31.6         | 30.3         | 3.9               | 7.0                        |
| CF       | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 20.3         | 8:00:00 AM  | 9.4          | 8.4 | 31.6         | 30.3         | 4.2               | 7.0                        |
| CF       | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 20.3         | 8:00:00 AM  | 9.4          | 8.4 | 31.5         | 30.4         | 4.0               | 8.0                        |
| WSR01    | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:26:00 AM  | 8.5          | 8.4 | 31.8         | 30.9         | 2.8               | 8.0                        |
| WSR01    | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:26:00 AM  | 8.7          | 8.3 | 31.8         | 30.8         | 2.4               | 8.0                        |
| WSR01    | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.3          | 8:25:00 AM  | 8.6          | 8.4 | 31.9         | 30.9         | 2.0               | 6.0                        |
| WSR01    | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.3          | 8:25:00 AM  | 8.6          | 8.4 | 31.9         | 30.8         | 2.3               | 6.0                        |
| WSR01    | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.6          | 8:24:00 AM  | 8.6          | 8.4 | 31.8         | 30.9         | 2.3               | 3.0                        |
| WSR01    | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.6          | 8:24:00 AM  | 8.5          | 8.3 | 31.8         | 30.8         | 2.1               | 2.5                        |
| WSR02    | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:43:00 AM  | 9.1          | 8.2 | 32.9         | 30.9         | 2.2               | 3.0                        |
| WSR02    | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:43:00 AM  | 9.1          | 8.3 | 32.9         | 30.9         | 2.0               | 3.0                        |
| WSR02    | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.7          | 8:42:00 AM  | 9.0          | 8.3 | 32.9         | 30.8         | 2.2               | 8.0                        |
| WSR02    | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.7          | 8:42:00 AM  | 9.2          | 8.3 | 32.9         | 30.8         | 2.4               | 7.0                        |
| WSR02    | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.4          | 8:41:00 AM  | 9.2          | 8.3 | 33.0         | 30.9         | 2.3               | 8.0                        |
| WSR02    | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.4          | 8:41:00 AM  | 9.1          | 8.2 | 32.9         | 30.9         | 2.2               | 8.0                        |
| WSR03    | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:57:00 AM  | 9.8          | 8.3 | 33.1         | 30.9         | 2.5               | 7.0                        |
| WSR03    | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 8:57:00 AM  | 9.8          | 8.3 | 33.1         | 30.9         | 2.5               | 7.0                        |
| WSR03    | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.2          | 8:56:00 AM  | 9.8          | 8.3 | 33.1         | 30.9         | 2.1               | 10.0                       |
| WSR03    | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.2          | 8:56:00 AM  | 9.9          | 8.3 | 33.2         | 30.9         | 2.3               | 9.0                        |
| WSR03    | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.3          | 8:55:00 AM  | 9.8          | 8.3 | 33.1         | 31.0         | 2.3               | 8.0                        |
| WSR03    | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.3          | 8:55:00 AM  | 9.9          | 8.3 | 33.1         | 30.9         | 2.4               | 8.0                        |
| WSR04    | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:11:00 AM  | 9.1          | 8.2 | 31.6         | 30.9         | 2.4               | 6.0                        |
| WSR04    | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:11:00 AM  | 9.1          | 8.2 | 31.5         | 30.8         | 2.3               | 7.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR04    | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.7          | 9:10:00 AM  | 9.2          | 8.3 | 31.5         | 30.9         | 2.1               | 6.0                        |
| WSR04    | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.7          | 9:10:00 AM  | 9.1          | 8.3 | 31.5         | 30.9         | 2.0               | 7.0                        |
| WSR04    | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.4          | 9:09:00 AM  | 9.2          | 8.3 | 31.6         | 30.8         | 2.3               | 5.0                        |
| WSR04    | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.4          | 9:09:00 AM  | 9.2          | 8.3 | 31.5         | 30.9         | 2.4               | 6.0                        |
| WSR16    | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:17:00 AM | 8.8          | 8.3 | 32.6         | 30.3         | 2.4               | 7.0                        |
| WSR16    | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:17:00 AM | 8.8          | 8.3 | 32.7         | 30.3         | 2.4               | 9.0                        |
| WSR16    | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 8.3          | 10:16:00 AM | 8.7          | 8.4 | 32.7         | 30.4         | 2.2               | 7.0                        |
| WSR16    | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 8.3          | 10:16:00 AM | 8.7          | 8.4 | 32.7         | 30.4         | 2.2               | 8.0                        |
| WSR16    | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 15.5         | 10:15:00 AM | 8.8          | 8.4 | 32.7         | 30.3         | 2.3               | 5.0                        |
| WSR16    | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 15.5         | 10:15:00 AM | 8.8          | 8.4 | 32.7         | 30.4         | 2.3               | 4.0                        |
| WSR33    | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:26:00 AM  | 9.2          | 8.3 | 32.9         | 30.3         | 2.3               | 7.0                        |
| WSR33    | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:26:00 AM  | 9.1          | 8.3 | 33.1         | 30.2         | 2.1               | 8.0                        |
| WSR33    | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.7          | 9:25:00 AM  | 9.3          | 8.2 | 33.0         | 30.3         | 2.3               | 8.0                        |
| WSR33    | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.7          | 9:25:00 AM  | 9.1          | 8.2 | 32.9         | 30.3         | 2.1               | 7.0                        |
| WSR33    | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.3          | 9:24:00 AM  | 9.3          | 8.3 | 33.1         | 30.2         | 2.4               | 9.0                        |
| WSR33    | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.3          | 9:24:00 AM  | 9.3          | 8.3 | 33.0         | 30.3         | 2.3               | 8.0                        |
| WSR36    | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:39:00 AM  | 9.8          | 8.2 | 32.5         | 30.9         | 2.3               | 10.0                       |
| WSR36    | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:39:00 AM  | 9.7          | 8.2 | 32.5         | 30.9         | 2.5               | 7.0                        |
| WSR36    | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.7          | 9:39:00 AM  | 9.7          | 8.2 | 32.5         | 30.9         | 2.5               | 12.0                       |
| WSR36    | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.7          | 9:39:00 AM  | 9.7          | 8.2 | 32.5         | 31.0         | 2.6               | 12.0                       |
| WSR36    | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.4          | 9:38:00 AM  | 9.6          | 8.2 | 32.5         | 31.0         | 2.3               | 9.0                        |
| WSR36    | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.4          | 9:38:00 AM  | 9.7          | 8.2 | 32.5         | 30.9         | 2.1               | 10.0                       |
| WSR37    | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:54:00 AM  | 9.0          | 8.3 | 33.1         | 30.5         | 2.3               | 12.0                       |
| WSR37    | 20220915 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 9:54:00 AM  | 9.1          | 8.3 | 33.1         | 30.5         | 2.0               | 10.0                       |
| WSR37    | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.0          | 9:53:00 AM  | 9.0          | 8.3 | 33.1         | 30.5         | 2.6               | 10.0                       |
| WSR37    | 20220915 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.0          | 9:53:00 AM  | 9.0          | 8.3 | 33.1         | 30.5         | 2.6               | 8.0                        |
| WSR37    | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.0          | 9:52:00 AM  | 9.0          | 8.4 | 33.1         | 30.5         | 1.9               | 9.0                        |
| WSR37    | 20220915 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.0          | 9:52:00 AM  | 9.1          | 8.4 | 33.1         | 30.5         | 1.7               | 10.0                       |
| CE       | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 1:02:00 PM  | 9.1          | 8.4 | 33.7         | 28.8         | 3.3               | 2.5                        |
| CE       | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 1:02:00 PM  | 9.1          | 8.4 | 33.7         | 28.8         | 3.2               | 2.5                        |
| CE       | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 11.3         | 1:01:00 PM  | 9.3          | 8.3 | 33.6         | 28.8         | 3.7               | 2.5                        |
| CE       | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 11.3         | 1:01:00 PM  | 9.2          | 8.3 | 33.8         | 28.8         | 3.6               | 2.5                        |
| CE       | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 21.5         | 1:00:00 PM  | 9.1          | 8.3 | 33.4         | 28.8         | 3.8               | 2.5                        |
| CE       | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 21.5         | 1:00:00 PM  | 9.2          | 8.3 | 33.7         | 28.9         | 3.6               | 2.5                        |
| CF       | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:22:00 AM | 9.5          | 8.2 | 33.3         | 29.3         | 3.7               | 2.5                        |
| CF       | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:22:00 AM | 9.5          | 8.3 | 33.1         | 29.3         | 3.5               | 2.5                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| CF       | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 9.7          | 10:21:00 AM | 9.4          | 8.2 | 33.2         | 29.3         | 4.1               | 2.5                        |
| CF       | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 9.7          | 10:21:00 AM | 9.6          | 8.2 | 33.3         | 29.4         | 3.8               | 2.5                        |
| CF       | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 18.3         | 10:20:00 AM | 9.4          | 8.2 | 33.1         | 29.4         | 4.3               | 2.5                        |
| CF       | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 18.3         | 10:20:00 AM | 9.6          | 8.3 | 33.0         | 29.3         | 4.2               | 2.5                        |
| WSR01    | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:46:00 AM | 8.8          | 8.4 | 33.6         | 28.9         | 2.0               | 2.5                        |
| WSR01    | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 10:46:00 AM | 8.8          | 8.4 | 33.8         | 28.9         | 2.2               | 2.5                        |
| WSR01    | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.7          | 10:45:00 AM | 8.9          | 8.4 | 33.6         | 28.9         | 2.2               | 3.0                        |
| WSR01    | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.7          | 10:45:00 AM | 8.9          | 8.3 | 33.8         | 29.0         | 2.1               | 2.5                        |
| WSR01    | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.3          | 10:44:00 AM | 8.9          | 8.3 | 33.6         | 29.0         | 2.0               | 3.0                        |
| WSR01    | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.3          | 10:44:00 AM | 9.1          | 8.3 | 33.5         | 29.0         | 1.9               | 2.5                        |
| WSR02    | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:05:00 AM | 9.2          | 8.3 | 33.8         | 29.2         | 2.1               | 3.0                        |
| WSR02    | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:05:00 AM | 8.9          | 8.3 | 33.5         | 29.2         | 2.0               | 2.5                        |
| WSR02    | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.5          | 11:04:00 AM | 9.2          | 8.2 | 33.7         | 29.2         | 2.1               | 2.5                        |
| WSR02    | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.5          | 11:04:00 AM | 9.1          | 8.3 | 33.5         | 29.1         | 2.0               | 2.5                        |
| WSR02    | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.0          | 11:03:00 AM | 9.1          | 8.2 | 33.7         | 29.2         | 2.4               | 3.0                        |
| WSR02    | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.0          | 11:03:00 AM | 9.0          | 8.3 | 33.5         | 29.2         | 2.2               | 3.0                        |
| WSR03    | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:20:00 AM | 8.8          | 8.2 | 33.0         | 29.1         | 2.3               | 3.0                        |
| WSR03    | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:20:00 AM | 8.9          | 8.2 | 32.8         | 29.1         | 2.6               | 2.5                        |
| WSR03    | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.8          | 11:19:00 AM | 8.7          | 8.2 | 32.8         | 29.1         | 1.9               | 2.5                        |
| WSR03    | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.8          | 11:19:00 AM | 8.7          | 8.2 | 33.2         | 29.2         | 2.1               | 2.5                        |
| WSR03    | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.5          | 11:18:00 AM | 8.9          | 8.2 | 33.0         | 29.2         | 1.7               | 2.5                        |
| WSR03    | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.5          | 11:18:00 AM | 8.8          | 8.2 | 33.2         | 29.1         | 2.1               | 3.0                        |
| WSR04    | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:33:00 AM | 8.7          | 8.3 | 33.2         | 29.3         | 2.2               | 2.5                        |
| WSR04    | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:33:00 AM | 8.9          | 8.3 | 33.3         | 29.3         | 2.1               | 3.0                        |
| WSR04    | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.5          | 11:32:00 AM | 8.8          | 8.3 | 33.0         | 29.3         | 2.4               | 2.5                        |
| WSR04    | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.5          | 11:32:00 AM | 8.8          | 8.4 | 33.2         | 29.3         | 2.5               | 3.0                        |
| WSR04    | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 5.9          | 11:31:00 AM | 8.9          | 8.3 | 33.1         | 29.3         | 2.1               | 2.5                        |
| WSR04    | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 5.9          | 11:31:00 AM | 8.9          | 8.3 | 33.3         | 29.3         | 2.4               | 3.0                        |
| WSR16    | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 12:38:00 PM | 9.0          | 8.4 | 33.4         | 29.6         | 2.1               | 5.0                        |
| WSR16    | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 12:38:00 PM | 9.0          | 8.3 | 33.4         | 29.5         | 2.0               | 6.0                        |
| WSR16    | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 8.1          | 12:37:00 PM | 8.9          | 8.3 | 33.4         | 29.5         | 2.3               | 2.5                        |
| WSR16    | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 8.1          | 12:37:00 PM | 8.9          | 8.3 | 33.6         | 29.6         | 2.3               | 3.0                        |
| WSR16    | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 15.1         | 12:36:00 PM | 8.9          | 8.3 | 33.6         | 29.5         | 2.3               | 6.0                        |
| WSR16    | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 15.1         | 12:36:00 PM | 9.0          | 8.4 | 33.6         | 29.5         | 2.3               | 4.0                        |
| WSR33    | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:47:00 AM | 8.7          | 8.2 | 32.9         | 28.8         | 2.1               | 2.5                        |
| WSR33    | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 11:47:00 AM | 8.7          | 8.2 | 32.8         | 28.8         | 2.0               | 4.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR33    | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.6          | 11:46:00 AM | 8.7          | 8.2 | 32.6         | 28.9         | 2.3               | 2.5                        |
| WSR33    | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.6          | 11:46:00 AM | 8.6          | 8.2 | 32.5         | 28.9         | 2.5               | 2.5                        |
| WSR33    | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.1          | 11:45:00 AM | 8.7          | 8.2 | 32.9         | 28.9         | 2.4               | 2.5                        |
| WSR33    | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.1          | 11:45:00 AM | 8.6          | 8.3 | 32.5         | 28.8         | 2.5               | 2.5                        |
| WSR36    | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 12:01:00 PM | 8.9          | 8.3 | 32.8         | 29.2         | 2.0               | 3.0                        |
| WSR36    | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 12:01:00 PM | 8.9          | 8.3 | 32.8         | 29.2         | 2.3               | 2.5                        |
| WSR36    | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.2          | 12:01:00 PM | 8.8          | 8.3 | 32.9         | 29.2         | 1.9               | 2.5                        |
| WSR36    | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.2          | 12:01:00 PM | 8.7          | 8.3 | 33.0         | 29.1         | 2.1               | 2.5                        |
| WSR36    | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 5.4          | 12:00:00 PM | 8.8          | 8.3 | 32.9         | 29.2         | 2.4               | 3.0                        |
| WSR36    | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 5.4          | 12:00:00 PM | 8.9          | 8.3 | 33.0         | 29.2         | 2.3               | 2.5                        |
| WSR37    | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 12:16:00 PM | 8.5          | 8.3 | 32.9         | 29.2         | 2.0               | 2.5                        |
| WSR37    | 20220917 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 12:16:00 PM | 8.5          | 8.4 | 33.1         | 29.1         | 2.0               | 3.0                        |
| WSR37    | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.1          | 12:15:00 PM | 8.7          | 8.3 | 33.0         | 29.1         | 2.1               | 3.0                        |
| WSR37    | 20220917 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.1          | 12:15:00 PM | 8.5          | 8.3 | 33.1         | 29.1         | 2.1               | 2.5                        |
| WSR37    | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.1          | 12:14:00 PM | 8.6          | 8.4 | 33.0         | 29.0         | 2.4               | 3.0                        |
| WSR37    | 20220917 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.1          | 12:14:00 PM | 8.5          | 8.4 | 33.0         | 29.1         | 2.4               | 2.5                        |
| CE       | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:58:00 PM  | 8.4          | 8.2 | 31.8         | 28.1         | 2.1               | 3.0                        |
| CE       | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:58:00 PM  | 8.5          | 8.2 | 32.1         | 28.0         | 2.0               | 4.0                        |
| CE       | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 10.4         | 6:57:00 PM  | 8.4          | 8.2 | 32.0         | 28.0         | 2.1               | 3.0                        |
| CE       | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 10.4         | 6:57:00 PM  | 8.5          | 8.2 | 32.0         | 28.1         | 1.9               | 2.5                        |
| CE       | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 19.7         | 6:56:00 PM  | 8.5          | 8.2 | 32.0         | 28.1         | 2.5               | 2.5                        |
| CE       | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 19.7         | 6:56:00 PM  | 8.3          | 8.2 | 32.1         | 28.1         | 2.4               | 3.0                        |
| CF       | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 4:42:00 PM  | 9.1          | 8.2 | 32.1         | 28.8         | 2.6               | 3.0                        |
| CF       | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 4:42:00 PM  | 9.3          | 8.2 | 32.1         | 28.7         | 2.4               | 3.0                        |
| CF       | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 10.8         | 4:41:00 PM  | 9.1          | 8.2 | 32.2         | 28.7         | 2.8               | 3.0                        |
| CF       | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 10.8         | 4:41:00 PM  | 9.3          | 8.2 | 32.1         | 28.7         | 2.6               | 3.0                        |
| CF       | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 20.5         | 4:40:00 PM  | 9.2          | 8.2 | 32.1         | 28.8         | 3.1               | 3.0                        |
| CF       | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 20.5         | 4:40:00 PM  | 9.1          | 8.2 | 32.2         | 28.6         | 2.8               | 2.5                        |
| WSR01    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:03:00 PM  | 9.0          | 8.3 | 32.4         | 28.2         | 1.6               | 2.5                        |
| WSR01    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:03:00 PM  | 8.8          | 8.3 | 32.4         | 28.2         | 1.6               | 2.5                        |
| WSR01    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.7          | 5:02:00 PM  | 8.8          | 8.3 | 32.3         | 28.3         | 1.6               | 3.0                        |
| WSR01    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.7          | 5:02:00 PM  | 8.9          | 8.3 | 32.4         | 28.2         | 1.5               | 2.5                        |
| WSR01    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 8.3          | 5:01:00 PM  | 8.8          | 8.3 | 32.3         | 28.2         | 1.8               | 4.0                        |
| WSR01    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 8.3          | 5:01:00 PM  | 8.8          | 8.3 | 32.5         | 28.3         | 1.7               | 3.0                        |
| WSR02    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:19:00 PM  | 9.2          | 8.3 | 32.6         | 28.5         | 1.7               | 5.0                        |
| WSR02    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:19:00 PM  | 9.1          | 8.2 | 32.7         | 28.7         | 1.6               | 3.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR02    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.6          | 5:18:00 PM | 9.3          | 8.3 | 32.6         | 28.6         | 1.9               | 3.0                        |
| WSR02    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.6          | 5:18:00 PM | 9.3          | 8.3 | 32.6         | 28.5         | 1.7               | 4.0                        |
| WSR02    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 8.1          | 5:17:00 PM | 9.3          | 8.2 | 32.9         | 28.6         | 1.9               | 4.0                        |
| WSR02    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 8.1          | 5:17:00 PM | 9.1          | 8.2 | 32.7         | 28.6         | 1.9               | 3.0                        |
| WSR03    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:30:00 PM | 8.9          | 8.3 | 32.2         | 28.5         | 1.5               | 4.0                        |
| WSR03    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:30:00 PM | 8.9          | 8.3 | 32.3         | 28.5         | 1.4               | 3.0                        |
| WSR03    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.2          | 5:29:00 PM | 9.0          | 8.3 | 32.1         | 28.5         | 1.6               | 4.0                        |
| WSR03    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.2          | 5:29:00 PM | 8.9          | 8.3 | 32.3         | 28.5         | 1.4               | 4.0                        |
| WSR03    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 7.4          | 5:28:00 PM | 8.9          | 8.3 | 32.3         | 28.5         | 1.9               | 4.0                        |
| WSR03    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 7.4          | 5:28:00 PM | 8.8          | 8.4 | 32.3         | 28.5         | 1.7               | 5.0                        |
| WSR04    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:42:00 PM | 8.6          | 8.3 | 32.1         | 28.2         | 2.0               | 7.0                        |
| WSR04    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:42:00 PM | 8.7          | 8.3 | 31.8         | 28.2         | 1.8               | 5.0                        |
| WSR04    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.4          | 5:41:00 PM | 8.6          | 8.3 | 32.1         | 28.2         | 1.7               | 5.0                        |
| WSR04    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.4          | 5:41:00 PM | 8.7          | 8.3 | 31.8         | 28.1         | 1.7               | 6.0                        |
| WSR04    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 5.7          | 5:40:00 PM | 8.5          | 8.3 | 31.9         | 28.2         | 1.9               | 6.0                        |
| WSR04    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 5.7          | 5:40:00 PM | 8.6          | 8.3 | 32.0         | 28.1         | 1.6               | 8.0                        |
| WSR16    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:42:00 PM | 8.3          | 8.2 | 32.1         | 28.5         | 2.2               | 5.0                        |
| WSR16    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:42:00 PM | 8.3          | 8.3 | 31.9         | 28.4         | 2.0               | 6.0                        |
| WSR16    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 7.8          | 6:41:00 PM | 8.3          | 8.3 | 32.0         | 28.3         | 2.0               | 5.0                        |
| WSR16    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 7.8          | 6:41:00 PM | 8.3          | 8.2 | 31.9         | 28.3         | 1.7               | 5.0                        |
| WSR16    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 14.6         | 6:40:00 PM | 8.3          | 8.2 | 31.8         | 28.5         | 1.5               | 5.0                        |
| WSR16    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 14.6         | 6:40:00 PM | 8.4          | 8.3 | 31.8         | 28.4         | 1.3               | 5.0                        |
| WSR33    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:55:00 PM | 8.9          | 8.2 | 31.9         | 28.1         | 2.0               | 7.0                        |
| WSR33    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:55:00 PM | 9.1          | 8.2 | 31.6         | 28.1         | 1.8               | 5.0                        |
| WSR33    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.7          | 5:54:00 PM | 8.9          | 8.3 | 31.6         | 28.1         | 1.7               | 4.0                        |
| WSR33    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.7          | 5:54:00 PM | 8.9          | 8.2 | 31.7         | 28.2         | 1.5               | 4.0                        |
| WSR33    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.4          | 5:53:00 PM | 8.9          | 8.2 | 31.8         | 28.1         | 2.1               | 5.0                        |
| WSR33    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.4          | 5:53:00 PM | 9.0          | 8.3 | 31.8         | 28.1         | 1.8               | 4.0                        |
| WSR36    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:07:00 PM | 9.1          | 8.3 | 32.1         | 28.6         | 1.7               | 3.0                        |
| WSR36    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:07:00 PM | 9.3          | 8.3 | 31.8         | 28.7         | 1.7               | 4.0                        |
| WSR36    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.7          | 6:07:00 PM | 9.2          | 8.3 | 31.9         | 28.6         | 1.9               | 6.0                        |
| WSR36    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.7          | 6:07:00 PM | 9.2          | 8.3 | 31.9         | 28.7         | 1.7               | 6.0                        |
| WSR36    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.4          | 6:06:00 PM | 9.3          | 8.3 | 31.8         | 28.7         | 1.6               | 4.0                        |
| WSR36    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.4          | 6:06:00 PM | 9.2          | 8.4 | 31.8         | 28.7         | 1.5               | 4.0                        |
| WSR37    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:21:00 PM | 8.6          | 8.3 | 32.6         | 28.9         | 1.3               | 3.0                        |
| WSR37    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:21:00 PM | 8.5          | 8.3 | 32.5         | 28.8         | 1.3               | 4.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR37    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.2          | 6:20:00 PM | 8.7          | 8.3 | 32.6         | 28.7         | 1.5               | 3.0                        |
| WSR37    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.2          | 6:20:00 PM | 8.5          | 8.3 | 32.4         | 28.7         | 1.5               | 3.0                        |
| WSR37    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 7.4          | 6:19:00 PM | 8.7          | 8.3 | 32.6         | 28.7         | 1.9               | 3.0                        |
| WSR37    | 20220920 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 7.4          | 6:19:00 PM | 8.7          | 8.3 | 32.4         | 28.7         | 1.9               | 4.0                        |
| CE       | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 6:23:00 PM | 9.2          | 8.5 | 31.1         | 28.5         | 1.5               | 2.5                        |
| CE       | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 6:23:00 PM | 9.2          | 8.5 | 31.3         | 28.6         | 1.5               | 2.5                        |
| CE       | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 10.1         | 6:22:00 PM | 9.2          | 8.5 | 31.2         | 28.6         | 2.2               | 7.0                        |
| CE       | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 10.1         | 6:22:00 PM | 9.3          | 8.5 | 31.3         | 28.6         | 1.8               | 6.0                        |
| CE       | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 19.2         | 6:21:00 PM | 9.3          | 8.5 | 31.2         | 28.6         | 2.0               | 6.0                        |
| CE       | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 19.2         | 6:21:00 PM | 9.2          | 8.5 | 31.2         | 28.6         | 2.2               | 3.0                        |
| CF       | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 3:47:00 PM | 9.6          | 8.1 | 32.8         | 28.9         | 2.1               | 3.0                        |
| CF       | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 3:47:00 PM | 9.5          | 8.1 | 32.8         | 28.9         | 2.3               | 2.5                        |
| CF       | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 10.6         | 3:46:00 PM | 9.6          | 8.1 | 32.7         | 28.9         | 2.2               | 2.5                        |
| CF       | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 10.6         | 3:46:00 PM | 9.6          | 8.1 | 32.8         | 28.9         | 2.3               | 2.5                        |
| CF       | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 20.1         | 3:45:00 PM | 9.5          | 8.1 | 33.0         | 28.8         | 2.6               | 9.0                        |
| CF       | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 20.1         | 3:45:00 PM | 9.6          | 8.1 | 32.7         | 28.9         | 2.5               | 7.0                        |
| WSR01    | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:10:00 PM | 8.9          | 8.4 | 32.4         | 28.5         | 1.0               | 8.0                        |
| WSR01    | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:10:00 PM | 8.9          | 8.4 | 32.6         | 28.5         | 1.1               | 4.0                        |
| WSR01    | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.7          | 4:09:00 PM | 8.9          | 8.4 | 32.6         | 28.5         | 1.1               | 5.0                        |
| WSR01    | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.7          | 4:09:00 PM | 8.9          | 8.4 | 32.7         | 28.5         | 1.1               | 7.0                        |
| WSR01    | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.3          | 4:08:00 PM | 8.8          | 8.4 | 32.4         | 28.6         | 1.4               | 2.5                        |
| WSR01    | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.3          | 4:08:00 PM | 8.9          | 8.4 | 32.6         | 28.5         | 1.2               | 2.5                        |
| WSR02    | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:27:00 PM | 8.5          | 8.2 | 31.1         | 28.3         | 1.3               | 5.0                        |
| WSR02    | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:27:00 PM | 8.5          | 8.3 | 31.2         | 28.3         | 1.1               | 5.0                        |
| WSR02    | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.9          | 4:26:00 PM | 8.5          | 8.3 | 31.1         | 28.3         | 1.2               | 2.5                        |
| WSR02    | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.9          | 4:26:00 PM | 8.4          | 8.2 | 31.2         | 28.3         | 1.0               | 2.5                        |
| WSR02    | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.7          | 4:25:00 PM | 8.5          | 8.2 | 31.3         | 28.3         | 1.0               | 5.0                        |
| WSR02    | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.7          | 4:25:00 PM | 8.5          | 8.3 | 31.2         | 28.2         | 1.2               | 9.0                        |
| WSR03    | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:39:00 PM | 9.6          | 8.4 | 32.5         | 28.9         | 1.2               | 3.0                        |
| WSR03    | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:39:00 PM | 9.6          | 8.4 | 32.5         | 28.9         | 1.2               | 5.0                        |
| WSR03    | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.9          | 4:38:00 PM | 9.5          | 8.4 | 32.5         | 28.9         | 1.5               | 23.0                       |
| WSR03    | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.9          | 4:38:00 PM | 9.5          | 8.4 | 32.5         | 28.9         | 1.6               | 23.0                       |
| WSR03    | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.7          | 4:37:00 PM | 9.6          | 8.4 | 32.3         | 29.0         | 1.1               | 2.5                        |
| WSR03    | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.7          | 4:37:00 PM | 9.6          | 8.4 | 32.5         | 29.0         | 1.0               | 2.5                        |
| WSR04    | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:52:00 PM | 9.1          | 8.1 | 31.5         | 28.7         | 1.1               | 9.0                        |
| WSR04    | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:52:00 PM | 9.1          | 8.1 | 31.7         | 28.7         | 1.3               | 6.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR04    | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.5          | 4:51:00 PM | 9.1          | 8.1 | 31.6         | 28.8         | 1.1               | 5.0                        |
| WSR04    | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.5          | 4:51:00 PM | 9.1          | 8.1 | 31.6         | 28.7         | 1.0               | 3.0                        |
| WSR04    | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.0          | 4:50:00 PM | 9.2          | 8.1 | 31.6         | 28.7         | 0.8               | 6.0                        |
| WSR04    | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.0          | 4:50:00 PM | 9.1          | 8.1 | 31.6         | 28.7         | 0.9               | 3.0                        |
| WSR16    | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 6:00:00 PM | 8.7          | 8.5 | 32.7         | 28.7         | 1.5               | 5.0                        |
| WSR16    | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 6:00:00 PM | 8.7          | 8.4 | 32.9         | 28.7         | 1.3               | 3.0                        |
| WSR16    | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 8.3          | 5:59:00 PM | 8.7          | 8.5 | 32.7         | 28.7         | 1.2               | 3.0                        |
| WSR16    | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 8.3          | 5:59:00 PM | 8.8          | 8.5 | 32.6         | 28.7         | 1.3               | 2.5                        |
| WSR16    | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 15.5         | 5:58:00 PM | 8.8          | 8.4 | 32.7         | 28.7         | 1.3               | 2.5                        |
| WSR16    | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 15.5         | 5:58:00 PM | 8.7          | 8.4 | 32.7         | 28.8         | 1.6               | 3.0                        |
| WSR33    | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:06:00 PM | 9.8          | 8.5 | 31.7         | 28.7         | 1.8               | 6.0                        |
| WSR33    | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:06:00 PM | 9.8          | 8.6 | 31.8         | 28.7         | 1.6               | 7.0                        |
| WSR33    | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.7          | 5:05:00 PM | 9.7          | 8.5 | 31.8         | 28.7         | 1.5               | 6.0                        |
| WSR33    | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.7          | 5:05:00 PM | 9.8          | 8.5 | 31.7         | 28.7         | 1.5               | 6.0                        |
| WSR33    | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.4          | 5:04:00 PM | 9.9          | 8.5 | 31.8         | 28.7         | 1.6               | 4.0                        |
| WSR33    | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.4          | 5:04:00 PM | 9.9          | 8.5 | 31.9         | 28.7         | 1.4               | 2.5                        |
| WSR36    | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:21:00 PM | 9.3          | 8.4 | 32.5         | 28.4         | 1.4               | 7.0                        |
| WSR36    | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:21:00 PM | 9.4          | 8.4 | 32.7         | 28.4         | 1.6               | 5.0                        |
| WSR36    | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.3          | 5:21:00 PM | 9.4          | 8.4 | 32.7         | 28.4         | 1.4               | 4.0                        |
| WSR36    | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.3          | 5:21:00 PM | 9.3          | 8.4 | 32.6         | 28.4         | 1.2               | 5.0                        |
| WSR36    | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 5.5          | 5:20:00 PM | 9.4          | 8.4 | 32.8         | 28.4         | 1.5               | 3.0                        |
| WSR36    | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 5.5          | 5:20:00 PM | 9.4          | 8.4 | 32.6         | 28.4         | 1.3               | 4.0                        |
| WSR37    | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:37:00 PM | 9.2          | 8.0 | 32.4         | 28.4         | 1.1               | 3.0                        |
| WSR37    | 20220922 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:37:00 PM | 9.2          | 8.0 | 32.5         | 28.5         | 1.3               | 5.0                        |
| WSR37    | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.8          | 5:36:00 PM | 9.4          | 8.0 | 32.4         | 28.5         | 1.0               | 4.0                        |
| WSR37    | 20220922 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.8          | 5:36:00 PM | 9.2          | 8.0 | 32.4         | 28.5         | 1.0               | 2.5                        |
| WSR37    | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.6          | 5:35:00 PM | 9.3          | 8.0 | 32.4         | 28.5         | 1.4               | 6.0                        |
| WSR37    | 20220922 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.6          | 5:35:00 PM | 9.2          | 8.0 | 32.7         | 28.5         | 1.4               | 6.0                        |
| CE       | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 6:59:00 PM | 8.5          | 8.2 | 33.5         | 28.5         | 2.7               | 2.5                        |
| CE       | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 6:59:00 PM | 8.6          | 8.2 | 33.5         | 28.4         | 2.6               | 2.5                        |
| CE       | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 12.1         | 6:58:00 PM | 8.6          | 8.2 | 33.5         | 28.3         | 2.3               | 2.5                        |
| CE       | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 12.1         | 6:58:00 PM | 8.5          | 8.2 | 33.4         | 28.4         | 2.1               | 3.0                        |
| CE       | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 23.1         | 6:57:00 PM | 8.5          | 8.2 | 33.6         | 28.3         | 2.4               | 2.5                        |
| CE       | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 23.1         | 6:57:00 PM | 8.6          | 8.2 | 33.6         | 28.5         | 2.3               | 2.5                        |
| CF       | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:28:00 PM | 8.6          | 8.3 | 32.5         | 28.1         | 2.7               | 2.5                        |
| CF       | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:28:00 PM | 8.6          | 8.2 | 32.5         | 28.2         | 2.8               | 2.5                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| CF       | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 9.5          | 4:27:00 PM | 8.6          | 8.2 | 32.4         | 28.2         | 2.8               | 2.5                        |
| CF       | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 9.5          | 4:27:00 PM | 8.6          | 8.2 | 32.5         | 28.2         | 2.9               | 2.5                        |
| CF       | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 18.0         | 4:26:00 PM | 8.6          | 8.2 | 32.4         | 28.2         | 2.8               | 2.5                        |
| CF       | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 18.0         | 4:26:00 PM | 8.6          | 8.2 | 32.4         | 28.1         | 2.9               | 2.5                        |
| WSR01    | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:50:00 PM | 8.1          | 8.1 | 33.1         | 28.2         | 2.4               | 2.5                        |
| WSR01    | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 4:50:00 PM | 8.1          | 8.2 | 33.3         | 28.2         | 2.4               | 2.5                        |
| WSR01    | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.6          | 4:49:00 PM | 8.0          | 8.2 | 33.2         | 28.2         | 2.4               | 3.0                        |
| WSR01    | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.6          | 4:49:00 PM | 8.0          | 8.2 | 33.1         | 28.2         | 2.2               | 4.0                        |
| WSR01    | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.1          | 4:48:00 PM | 8.0          | 8.2 | 33.1         | 28.2         | 2.2               | 2.5                        |
| WSR01    | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.1          | 4:48:00 PM | 8.2          | 8.2 | 33.1         | 28.2         | 2.1               | 2.5                        |
| WSR02    | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:08:00 PM | 8.3          | 8.3 | 32.9         | 28.4         | 2.5               | 3.0                        |
| WSR02    | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:08:00 PM | 8.2          | 8.3 | 32.9         | 28.4         | 2.4               | 2.5                        |
| WSR02    | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.6          | 5:07:00 PM | 8.3          | 8.2 | 32.9         | 28.4         | 1.8               | 2.5                        |
| WSR02    | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.6          | 5:07:00 PM | 8.4          | 8.2 | 32.8         | 28.5         | 1.7               | 2.5                        |
| WSR02    | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.1          | 5:06:00 PM | 8.3          | 8.2 | 33.0         | 28.4         | 1.8               | 3.0                        |
| WSR02    | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 8.1          | 5:06:00 PM | 8.2          | 8.2 | 32.9         | 28.4         | 1.9               | 2.5                        |
| WSR03    | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:21:00 PM | 8.6          | 8.3 | 33.2         | 28.4         | 2.4               | 3.0                        |
| WSR03    | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:21:00 PM | 8.5          | 8.3 | 33.2         | 28.5         | 2.6               | 2.5                        |
| WSR03    | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.2          | 5:20:00 PM | 8.5          | 8.3 | 33.2         | 28.4         | 2.2               | 2.5                        |
| WSR03    | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.2          | 5:20:00 PM | 8.4          | 8.3 | 33.3         | 28.4         | 2.2               | 2.5                        |
| WSR03    | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.4          | 5:19:00 PM | 8.5          | 8.3 | 33.3         | 28.4         | 1.7               | 2.5                        |
| WSR03    | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.4          | 5:19:00 PM | 8.4          | 8.2 | 33.2         | 28.4         | 1.8               | 4.0                        |
| WSR04    | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:34:00 PM | 8.1          | 8.1 | 33.3         | 28.8         | 1.9               | 3.0                        |
| WSR04    | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:34:00 PM | 8.0          | 8.1 | 33.4         | 28.8         | 2.1               | 6.0                        |
| WSR04    | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.8          | 5:33:00 PM | 8.1          | 8.1 | 33.1         | 28.9         | 2.1               | 2.5                        |
| WSR04    | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.8          | 5:33:00 PM | 8.2          | 8.1 | 33.3         | 28.9         | 1.8               | 2.5                        |
| WSR04    | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.5          | 5:32:00 PM | 8.1          | 8.1 | 33.2         | 28.9         | 1.8               | 2.5                        |
| WSR04    | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.5          | 5:32:00 PM | 8.1          | 8.1 | 33.4         | 28.9         | 1.7               | 2.5                        |
| WSR16    | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 6:36:00 PM | 7.9          | 8.3 | 33.0         | 28.4         | 2.4               | 2.5                        |
| WSR16    | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 6:36:00 PM | 8.1          | 8.3 | 33.0         | 28.4         | 2.3               | 2.5                        |
| WSR16    | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 8.2          | 6:35:00 PM | 8.0          | 8.3 | 32.9         | 28.4         | 2.4               | 2.5                        |
| WSR16    | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 8.2          | 6:35:00 PM | 7.9          | 8.3 | 33.0         | 28.4         | 2.3               | 2.5                        |
| WSR16    | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 15.4         | 6:34:00 PM | 8.0          | 8.3 | 33.0         | 28.4         | 2.1               | 3.0                        |
| WSR16    | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 15.4         | 6:34:00 PM | 7.9          | 8.3 | 32.9         | 28.4         | 2.1               | 2.5                        |
| WSR33    | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:48:00 PM | 8.3          | 8.1 | 33.3         | 28.5         | 2.7               | 2.5                        |
| WSR33    | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 5:48:00 PM | 8.2          | 8.2 | 33.4         | 28.4         | 2.4               | 3.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR33    | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.7          | 5:47:00 PM | 8.2          | 8.1 | 33.3         | 28.5         | 2.2               | 2.5                        |
| WSR33    | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.7          | 5:47:00 PM | 8.3          | 8.1 | 33.4         | 28.4         | 2.6               | 3.0                        |
| WSR33    | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.3          | 5:46:00 PM | 8.3          | 8.2 | 33.2         | 28.4         | 2.4               | 3.0                        |
| WSR33    | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.3          | 5:46:00 PM | 8.2          | 8.1 | 33.2         | 28.5         | 2.2               | 2.5                        |
| WSR36    | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 6:01:00 PM | 8.1          | 8.3 | 32.7         | 28.3         | 1.5               | 2.5                        |
| WSR36    | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 6:01:00 PM | 8.2          | 8.3 | 32.4         | 28.4         | 1.4               | 3.0                        |
| WSR36    | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.9          | 6:01:00 PM | 8.1          | 8.3 | 32.5         | 28.3         | 1.4               | 2.5                        |
| WSR36    | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 3.9          | 6:01:00 PM | 8.3          | 8.3 | 32.6         | 28.3         | 1.5               | 2.5                        |
| WSR36    | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.7          | 6:00:00 PM | 8.1          | 8.3 | 32.6         | 28.4         | 1.6               | 3.0                        |
| WSR36    | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 6.7          | 6:00:00 PM | 8.3          | 8.3 | 32.6         | 28.4         | 1.8               | 2.5                        |
| WSR37    | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 6:17:00 PM | 8.6          | 8.2 | 32.6         | 28.8         | 2.3               | 2.5                        |
| WSR37    | 20220924 | Sunny   | Moderate         | Mid-Flood | Surface        | 1.0          | 6:17:00 PM | 8.7          | 8.3 | 32.7         | 28.7         | 2.2               | 2.5                        |
| WSR37    | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.1          | 6:16:00 PM | 8.6          | 8.3 | 32.8         | 28.7         | 1.8               | 2.5                        |
| WSR37    | 20220924 | Sunny   | Moderate         | Mid-Flood | Middle         | 4.1          | 6:16:00 PM | 8.6          | 8.2 | 32.7         | 28.7         | 2.1               | 3.0                        |
| WSR37    | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.2          | 6:15:00 PM | 8.6          | 8.2 | 32.7         | 28.7         | 1.3               | 2.5                        |
| WSR37    | 20220924 | Sunny   | Moderate         | Mid-Flood | Bottom         | 7.2          | 6:15:00 PM | 8.6          | 8.3 | 32.8         | 28.8         | 1.3               | 2.5                        |
| CE       | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 7:02:00 PM | 8.6          | 8.3 | 33.1         | 28.5         | 2.7               | 4.0                        |
| CE       | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 7:02:00 PM | 8.5          | 8.2 | 33.1         | 28.5         | 2.9               | 2.5                        |
| CE       | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 10.2         | 7:01:00 PM | 8.5          | 8.3 | 33.1         | 28.5         | 2.8               | 8.0                        |
| CE       | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 10.2         | 7:01:00 PM | 8.5          | 8.3 | 33.1         | 28.5         | 2.7               | 5.0                        |
| CE       | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 19.4         | 7:00:00 PM | 8.6          | 8.3 | 33.1         | 28.5         | 2.7               | 2.5                        |
| CE       | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 19.4         | 7:00:00 PM | 8.5          | 8.3 | 33.1         | 28.5         | 2.8               | 3.0                        |
| CF       | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 4:26:00 PM | 8.2          | 8.2 | 32.8         | 28.4         | 2.7               | 2.5                        |
| CF       | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 4:26:00 PM | 8.1          | 8.2 | 32.9         | 28.4         | 2.8               | 3.0                        |
| CF       | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 9.6          | 4:25:00 PM | 8.2          | 8.2 | 32.8         | 28.4         | 2.8               | 2.5                        |
| CF       | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 9.6          | 4:25:00 PM | 8.2          | 8.2 | 32.8         | 28.4         | 3.0               | 2.5                        |
| CF       | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 18.2         | 4:24:00 PM | 8.0          | 8.2 | 32.9         | 28.4         | 3.3               | 3.0                        |
| CF       | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 18.2         | 4:24:00 PM | 8.1          | 8.2 | 32.9         | 28.4         | 3.1               | 2.5                        |
| WSR01    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 4:50:00 PM | 8.5          | 8.2 | 33.2         | 27.8         | 2.1               | 2.5                        |
| WSR01    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 4:50:00 PM | 8.7          | 8.3 | 33.3         | 27.8         | 2.3               | 2.5                        |
| WSR01    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.6          | 4:49:00 PM | 8.5          | 8.3 | 33.2         | 27.8         | 1.9               | 2.5                        |
| WSR01    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.6          | 4:49:00 PM | 8.6          | 8.3 | 33.2         | 27.8         | 1.7               | 2.5                        |
| WSR01    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 8.1          | 4:48:00 PM | 8.6          | 8.3 | 33.2         | 27.8         | 1.6               | 2.5                        |
| WSR01    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 8.1          | 4:48:00 PM | 8.6          | 8.2 | 33.3         | 27.8         | 1.8               | 2.5                        |
| WSR02    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:08:00 PM | 9.0          | 8.2 | 33.3         | 27.9         | 2.2               | 4.0                        |
| WSR02    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:08:00 PM | 9.0          | 8.2 | 33.2         | 27.9         | 1.8               | 2.5                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR02    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.7          | 5:07:00 PM | 9.0          | 8.2 | 33.3         | 27.9         | 2.1               | 2.5                        |
| WSR02    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.7          | 5:07:00 PM | 9.1          | 8.2 | 33.3         | 27.9         | 2.2               | 2.5                        |
| WSR02    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 8.3          | 5:06:00 PM | 8.9          | 8.2 | 33.3         | 27.9         | 2.0               | 2.5                        |
| WSR02    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 8.3          | 5:06:00 PM | 9.1          | 8.2 | 33.3         | 27.9         | 1.9               | 2.5                        |
| WSR03    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:22:00 PM | 8.9          | 8.3 | 33.8         | 28.3         | 2.2               | 2.5                        |
| WSR03    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:22:00 PM | 8.8          | 8.3 | 33.7         | 28.3         | 2.3               | 2.5                        |
| WSR03    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.2          | 5:21:00 PM | 8.8          | 8.2 | 33.7         | 28.3         | 2.2               | 2.5                        |
| WSR03    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.2          | 5:21:00 PM | 8.9          | 8.2 | 33.7         | 28.3         | 2.1               | 2.5                        |
| WSR03    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 7.4          | 5:20:00 PM | 8.7          | 8.3 | 33.8         | 28.3         | 1.8               | 2.5                        |
| WSR03    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 7.4          | 5:20:00 PM | 8.8          | 8.3 | 33.8         | 28.3         | 1.6               | 2.5                        |
| WSR04    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:35:00 PM | 8.2          | 8.2 | 32.8         | 28.3         | 2.3               | 2.5                        |
| WSR04    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:35:00 PM | 8.3          | 8.2 | 32.7         | 28.3         | 2.2               | 2.5                        |
| WSR04    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.7          | 5:34:00 PM | 8.1          | 8.2 | 32.8         | 28.3         | 2.1               | 2.5                        |
| WSR04    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.7          | 5:34:00 PM | 8.3          | 8.2 | 32.8         | 28.3         | 2.0               | 4.0                        |
| WSR04    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.3          | 5:33:00 PM | 8.1          | 8.2 | 32.8         | 28.3         | 1.9               | 2.5                        |
| WSR04    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.3          | 5:33:00 PM | 8.3          | 8.2 | 32.8         | 28.3         | 1.8               | 2.5                        |
| WSR16    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:38:00 PM | 8.3          | 8.2 | 33.6         | 28.0         | 2.1               | 2.5                        |
| WSR16    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:38:00 PM | 8.2          | 8.2 | 33.5         | 28.0         | 2.3               | 3.0                        |
| WSR16    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 7.9          | 6:37:00 PM | 8.4          | 8.2 | 33.6         | 28.0         | 2.1               | 5.0                        |
| WSR16    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 7.9          | 6:37:00 PM | 8.4          | 8.2 | 33.5         | 28.0         | 2.1               | 3.0                        |
| WSR16    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 14.8         | 6:36:00 PM | 8.2          | 8.2 | 33.6         | 28.0         | 2.3               | 3.0                        |
| WSR16    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 14.8         | 6:36:00 PM | 8.4          | 8.2 | 33.5         | 28.0         | 2.1               | 2.5                        |
| WSR33    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:49:00 PM | 8.2          | 8.2 | 33.0         | 28.5         | 2.2               | 2.5                        |
| WSR33    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 5:49:00 PM | 8.0          | 8.3 | 32.8         | 28.5         | 2.2               | 2.5                        |
| WSR33    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.6          | 5:48:00 PM | 8.0          | 8.3 | 33.0         | 28.5         | 1.6               | 2.5                        |
| WSR33    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.6          | 5:48:00 PM | 8.1          | 8.3 | 32.9         | 28.5         | 1.9               | 2.5                        |
| WSR33    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.2          | 5:47:00 PM | 8.1          | 8.3 | 32.8         | 28.5         | 1.7               | 2.5                        |
| WSR33    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.2          | 5:47:00 PM | 8.0          | 8.3 | 32.9         | 28.5         | 1.5               | 2.5                        |
| WSR36    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:01:00 PM | 8.3          | 8.2 | 33.6         | 28.1         | 2.2               | 2.5                        |
| WSR36    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:01:00 PM | 8.2          | 8.2 | 33.6         | 28.1         | 2.2               | 2.5                        |
| WSR36    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.8          | 6:01:00 PM | 8.3          | 8.2 | 33.6         | 28.0         | 2.3               | 2.5                        |
| WSR36    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.8          | 6:01:00 PM | 8.3          | 8.3 | 33.6         | 28.0         | 2.2               | 2.5                        |
| WSR36    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.6          | 6:00:00 PM | 8.3          | 8.2 | 33.7         | 28.1         | 1.9               | 2.5                        |
| WSR36    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.6          | 6:00:00 PM | 8.4          | 8.3 | 33.7         | 28.1         | 2.0               | 2.5                        |
| WSR37    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:17:00 PM | 8.2          | 8.2 | 33.3         | 28.4         | 2.1               | 3.0                        |
| WSR37    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 6:17:00 PM | 8.1          | 8.2 | 33.2         | 28.4         | 2.3               | 2.5                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR37    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.5          | 6:16:00 PM  | 8.1          | 8.2 | 33.3         | 28.3         | 2.3               | 2.5                        |
| WSR37    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.5          | 6:16:00 PM  | 8.1          | 8.2 | 33.3         | 28.4         | 2.2               | 3.0                        |
| WSR37    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 7.9          | 6:15:00 PM  | 8.1          | 8.2 | 33.4         | 28.4         | 2.1               | 2.5                        |
| WSR37    | 20220927 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 7.9          | 6:15:00 PM  | 8.2          | 8.2 | 33.4         | 28.4         | 2.1               | 2.5                        |
| CE       | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 10:47:00 AM | 8.5          | 8.3 | 33.0         | 28.1         | 2.7               | 2.5                        |
| CE       | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 10:47:00 AM | 8.7          | 8.2 | 33.0         | 28.1         | 2.3               | 4.0                        |
| CE       | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 10.6         | 10:46:00 AM | 8.6          | 8.3 | 33.0         | 28.3         | 2.4               | 2.5                        |
| CE       | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 10.6         | 10:46:00 AM | 8.6          | 8.3 | 33.1         | 28.1         | 2.5               | 3.0                        |
| CE       | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 20.1         | 10:45:00 AM | 8.6          | 8.3 | 33.1         | 28.3         | 2.6               | 3.0                        |
| CE       | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 20.1         | 10:45:00 AM | 8.6          | 8.3 | 33.2         | 28.3         | 2.7               | 5.0                        |
| CF       | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 8:11:00 AM  | 8.1          | 8.4 | 32.6         | 28.1         | 2.6               | 5.0                        |
| CF       | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 8:11:00 AM  | 8.0          | 8.3 | 32.5         | 28.0         | 2.6               | 3.0                        |
| CF       | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 10.4         | 8:10:00 AM  | 8.1          | 8.3 | 32.6         | 28.1         | 2.9               | 3.0                        |
| CF       | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 10.4         | 8:10:00 AM  | 8.1          | 8.3 | 32.6         | 28.1         | 2.7               | 2.5                        |
| CF       | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 19.7         | 8:09:00 AM  | 8.0          | 8.4 | 32.7         | 28.1         | 3.0               | 3.0                        |
| CF       | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 19.7         | 8:09:00 AM  | 8.1          | 8.3 | 32.7         | 28.0         | 3.0               | 3.0                        |
| WSR01    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 8:34:00 AM  | 8.7          | 8.2 | 33.4         | 27.9         | 2.5               | 3.0                        |
| WSR01    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 8:34:00 AM  | 8.7          | 8.2 | 33.5         | 28.0         | 2.4               | 6.0                        |
| WSR01    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.7          | 8:33:00 AM  | 8.7          | 8.2 | 33.4         | 27.8         | 2.3               | 2.5                        |
| WSR01    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.7          | 8:33:00 AM  | 8.8          | 8.2 | 33.5         | 27.9         | 2.3               | 2.5                        |
| WSR01    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 8.4          | 8:32:00 AM  | 8.8          | 8.2 | 33.4         | 27.9         | 2.4               | 3.0                        |
| WSR01    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 8.4          | 8:32:00 AM  | 8.7          | 8.2 | 33.4         | 27.9         | 2.4               | 2.5                        |
| WSR02    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 8:52:00 AM  | 8.2          | 8.3 | 32.5         | 28.2         | 2.0               | 2.5                        |
| WSR02    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 8:52:00 AM  | 8.1          | 8.3 | 32.6         | 28.3         | 2.2               | 3.0                        |
| WSR02    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.7          | 8:51:00 AM  | 8.1          | 8.3 | 32.4         | 28.3         | 2.2               | 5.0                        |
| WSR02    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.7          | 8:51:00 AM  | 8.1          | 8.2 | 32.4         | 28.3         | 2.2               | 5.0                        |
| WSR02    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 8.4          | 8:50:00 AM  | 8.1          | 8.3 | 32.6         | 28.3         | 2.3               | 8.0                        |
| WSR02    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 8.4          | 8:50:00 AM  | 8.1          | 8.3 | 32.5         | 28.2         | 2.0               | 8.0                        |
| WSR03    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 9:06:00 AM  | 8.6          | 8.2 | 32.6         | 27.9         | 2.1               | 6.0                        |
| WSR03    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 9:06:00 AM  | 8.6          | 8.2 | 32.7         | 28.0         | 2.1               | 7.0                        |
| WSR03    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.2          | 9:05:00 AM  | 8.6          | 8.2 | 32.6         | 27.8         | 2.4               | 8.0                        |
| WSR03    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.2          | 9:05:00 AM  | 8.6          | 8.2 | 32.7         | 28.0         | 2.3               | 8.0                        |
| WSR03    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 7.4          | 9:04:00 AM  | 8.6          | 8.2 | 32.7         | 28.0         | 2.2               | 6.0                        |
| WSR03    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 7.4          | 9:04:00 AM  | 8.5          | 8.3 | 32.7         | 27.8         | 2.1               | 9.0                        |
| WSR04    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 9:20:00 AM  | 8.7          | 8.3 | 33.1         | 28.2         | 1.7               | 5.0                        |
| WSR04    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 9:20:00 AM  | 8.7          | 8.2 | 33.1         | 28.2         | 1.7               | 6.0                        |
| WSR04    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.8          | 9:19:00 AM  | 8.6          | 8.3 | 33.1         | 28.4         | 2.2               | 7.0                        |
| WSR04    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.8          | 9:19:00 AM  | 8.7          | 8.2 | 33.0         | 28.3         | 2.0               | 10.0                       |
| WSR04    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.5          | 9:18:00 AM  | 8.7          | 8.2 | 33.2         | 28.2         | 2.1               | 4.0                        |
| WSR04    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.5          | 9:18:00 AM  | 8.7          | 8.3 | 33.2         | 28.4         | 2.2               | 5.0                        |
| WSR16    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 10:25:00 AM | 8.1          | 8.3 | 33.3         | 28.5         | 2.4               | 15.0                       |
| WSR16    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 10:25:00 AM | 8.1          | 8.3 | 33.2         | 28.6         | 2.1               | 14.0                       |

| Location | Date     | Weather | Sea<br>Condition | Tidal     | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|-----------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR16    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 7.6          | 10:24:00 AM | 8.1          | 8.3 | 33.3         | 28.5         | 2.1               | 8.0                        |
| WSR16    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 7.6          | 10:24:00 AM | 8.2          | 8.2 | 33.2         | 28.4         | 2.3               | 7.0                        |
| WSR16    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 14.2         | 10:23:00 AM | 8.2          | 8.2 | 33.4         | 28.6         | 2.1               | 3.0                        |
| WSR16    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 14.2         | 10:23:00 AM | 8.1          | 8.2 | 33.3         | 28.6         | 2.3               | 3.0                        |
| WSR33    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 9:34:00 AM  | 9.0          | 8.3 | 32.8         | 28.3         | 2.2               | 3.0                        |
| WSR33    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 9:34:00 AM  | 9.0          | 8.3 | 32.7         | 28.2         | 2.2               | 3.0                        |
| WSR33    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.5          | 9:33:00 AM  | 9.0          | 8.3 | 32.7         | 28.1         | 1.9               | 3.0                        |
| WSR33    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.5          | 9:33:00 AM  | 9.0          | 8.2 | 32.8         | 28.1         | 2.0               | 3.0                        |
| WSR33    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.0          | 9:32:00 AM  | 9.0          | 8.3 | 32.8         | 28.3         | 2.2               | 3.0                        |
| WSR33    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.0          | 9:32:00 AM  | 9.0          | 8.3 | 32.8         | 28.1         | 2.2               | 5.0                        |
| WSR36    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 9:46:00 AM  | 8.1          | 8.3 | 33.0         | 28.1         | 2.5               | 2.5                        |
| WSR36    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 9:46:00 AM  | 8.1          | 8.4 | 32.9         | 28.0         | 2.5               | 2.5                        |
| WSR36    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.9          | 9:46:00 AM  | 8.2          | 8.4 | 32.9         | 28.1         | 2.4               | 3.0                        |
| WSR36    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 3.9          | 9:46:00 AM  | 8.1          | 8.4 | 32.8         | 28.1         | 2.5               | 5.0                        |
| WSR36    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.7          | 9:45:00 AM  | 8.1          | 8.4 | 33.0         | 28.0         | 2.4               | 4.0                        |
| WSR36    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 6.7          | 9:45:00 AM  | 8.1          | 8.3 | 33.0         | 28.0         | 2.2               | 3.0                        |
| WSR37    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 10:02:00 AM | 8.8          | 8.3 | 33.0         | 28.3         | 2.1               | 2.5                        |
| WSR37    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Surface        | 1.0          | 10:02:00 AM | 8.8          | 8.3 | 32.9         | 28.3         | 2.3               | 4.0                        |
| WSR37    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.3          | 10:01:00 AM | 8.8          | 8.3 | 32.9         | 28.3         | 1.8               | 2.5                        |
| WSR37    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Middle         | 4.3          | 10:01:00 AM | 8.9          | 8.3 | 33.0         | 28.4         | 1.7               | 3.0                        |
| WSR37    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 7.6          | 10:00:00 AM | 8.9          | 8.3 | 32.9         | 28.2         | 2.2               | 2.5                        |
| WSR37    | 20220929 | Cloudy  | Moderate         | Mid-Flood | Bottom         | 7.6          | 10:00:00 AM | 8.8          | 8.3 | 32.9         | 28.2         | 2.0               | 2.5                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | pН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| CE       | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:51:00 PM | 8.9          | 8.1 | 30.6         | 29.7         | 3.2               | 3.0                        |
| CE       | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:51:00 PM | 9.0          | 8.1 | 30.8         | 29.7         | 3.3               | 3.0                        |
| CE       | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.4         | 1:50:00 PM | 8.7          | 8.1 | 30.7         | 29.7         | 3.4               | 2.5                        |
| CE       | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.4         | 1:50:00 PM | 9.0          | 8.1 | 30.7         | 29.7         | 3.5               | 2.5                        |
| CE       | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 19.7         | 1:49:00 PM | 8.8          | 8.1 | 30.7         | 29.8         | 3.8               | 2.5                        |
| CE       | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 19.7         | 1:49:00 PM | 9.0          | 8.1 | 30.5         | 29.7         | 3.6               | 2.5                        |
| CF       | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:25:00 PM | 9.0          | 8.1 | 30.9         | 29.2         | 2.6               | 3.0                        |
| CF       | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:25:00 PM | 8.9          | 8.1 | 30.9         | 29.2         | 2.7               | 2.5                        |
| CF       | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 9.7          | 4:24:00 PM | 8.8          | 8.1 | 31.0         | 29.3         | 3.1               | 4.0                        |
| CF       | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 9.7          | 4:24:00 PM | 8.8          | 8.1 | 31.0         | 29.2         | 2.9               | 2.5                        |
| CF       | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 18.4         | 4:23:00 PM | 9.0          | 8.1 | 31.1         | 29.2         | 3.2               | 2.5                        |
| CF       | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 18.4         | 4:23:00 PM | 8.8          | 8.1 | 31.0         | 29.2         | 3.3               | 4.0                        |
| WSR01    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:02:00 PM | 8.5          | 8.2 | 31.0         | 29.7         | 2.3               | 2.5                        |
| WSR01    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:02:00 PM | 8.5          | 8.1 | 31.2         | 29.8         | 2.3               | 2.5                        |
| WSR01    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.8          | 4:01:00 PM | 8.4          | 8.1 | 31.1         | 29.7         | 2.3               | 2.5                        |
| WSR01    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.8          | 4:01:00 PM | 8.4          | 8.1 | 31.1         | 29.8         | 2.4               | 3.0                        |
| WSR01    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.5          | 4:00:00 PM | 8.4          | 8.1 | 31.2         | 29.8         | 2.1               | 3.0                        |
| WSR01    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.5          | 4:00:00 PM | 8.4          | 8.1 | 31.2         | 29.7         | 2.2               | 2.5                        |
| WSR02    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:44:00 PM | 8.5          | 8.1 | 31.0         | 29.2         | 2.3               | 2.5                        |
| WSR02    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:44:00 PM | 8.6          | 8.1 | 30.8         | 29.1         | 2.0               | 3.0                        |
| WSR02    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.7          | 3:43:00 PM | 8.6          | 8.1 | 31.0         | 29.2         | 2.4               | 7.0                        |
| WSR02    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.7          | 3:43:00 PM | 8.4          | 8.2 | 30.9         | 29.1         | 2.3               | 5.0                        |
| WSR02    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.4          | 3:42:00 PM | 8.4          | 8.1 | 30.9         | 29.2         | 2.2               | 2.5                        |
| WSR02    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.4          | 3:42:00 PM | 8.4          | 8.1 | 30.9         | 29.1         | 2.3               | 2.5                        |
| WSR03    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:29:00 PM | 8.7          | 8.1 | 31.2         | 29.7         | 2.5               | 4.0                        |
| WSR03    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:29:00 PM | 8.7          | 8.1 | 31.2         | 29.7         | 2.6               | 4.0                        |
| WSR03    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.2          | 3:28:00 PM | 8.7          | 8.0 | 31.0         | 29.8         | 2.1               | 2.5                        |
| WSR03    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.2          | 3:28:00 PM | 8.7          | 8.0 | 30.9         | 29.8         | 2.1               | 2.5                        |
| WSR03    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.3          | 3:27:00 PM | 8.7          | 8.0 | 31.0         | 29.8         | 2.1               | 2.5                        |
| WSR03    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.3          | 3:27:00 PM | 8.6          | 8.0 | 31.1         | 29.8         | 2.1               | 2.5                        |
| WSR04    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:17:00 PM | 8.8          | 8.0 | 30.2         | 29.2         | 2.2               | 2.5                        |
| WSR04    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:17:00 PM | 8.9          | 8.0 | 30.1         | 29.2         | 2.2               | 4.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR04    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.6          | 3:16:00 PM | 8.9          | 8.1 | 30.3         | 29.2         | 2.3               | 2.5                        |
| WSR04    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.6          | 3:16:00 PM | 8.9          | 8.0 | 30.2         | 29.2         | 1.9               | 4.0                        |
| WSR04    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.1          | 3:15:00 PM | 9.0          | 8.0 | 30.2         | 29.2         | 2.0               | 5.0                        |
| WSR04    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.1          | 3:15:00 PM | 9.1          | 8.0 | 30.1         | 29.3         | 2.4               | 4.0                        |
| WSR16    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:13:00 PM | 9.1          | 8.1 | 30.7         | 29.2         | 2.6               | 9.0                        |
| WSR16    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:13:00 PM | 8.8          | 8.2 | 30.7         | 29.1         | 2.4               | 6.0                        |
| WSR16    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 7.9          | 2:12:00 PM | 8.9          | 8.1 | 30.7         | 29.1         | 2.4               | 3.0                        |
| WSR16    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 7.9          | 2:12:00 PM | 8.7          | 8.1 | 30.7         | 29.1         | 2.1               | 2.5                        |
| WSR16    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 14.7         | 2:11:00 PM | 8.8          | 8.1 | 30.7         | 29.1         | 2.3               | 3.0                        |
| WSR16    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 14.7         | 2:11:00 PM | 8.9          | 8.1 | 30.7         | 29.1         | 2.3               | 4.0                        |
| WSR33    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:02:00 PM | 8.7          | 8.0 | 30.7         | 29.7         | 1.6               | 2.5                        |
| WSR33    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:02:00 PM | 8.6          | 8.0 | 30.6         | 29.7         | 2.0               | 4.0                        |
| WSR33    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.6          | 3:01:00 PM | 8.6          | 8.0 | 30.6         | 29.6         | 2.4               | 3.0                        |
| WSR33    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.6          | 3:01:00 PM | 8.7          | 8.1 | 30.7         | 29.6         | 2.6               | 3.0                        |
| WSR33    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.2          | 3:00:00 PM | 8.7          | 8.1 | 30.7         | 29.6         | 2.0               | 3.0                        |
| WSR33    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.2          | 3:00:00 PM | 8.7          | 8.1 | 30.7         | 29.7         | 2.2               | 2.5                        |
| WSR36    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:46:00 PM | 9.0          | 8.1 | 30.9         | 29.7         | 2.1               | 3.0                        |
| WSR36    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:46:00 PM | 9.0          | 8.2 | 31.0         | 29.8         | 2.4               | 2.5                        |
| WSR36    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.3          | 2:46:00 PM | 9.1          | 8.1 | 30.9         | 29.7         | 2.3               | 7.0                        |
| WSR36    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.3          | 2:46:00 PM | 9.1          | 8.1 | 30.8         | 29.7         | 2.3               | 7.0                        |
| WSR36    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 5.5          | 2:45:00 PM | 9.0          | 8.1 | 30.8         | 29.7         | 2.3               | 2.5                        |
| WSR36    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 5.5          | 2:45:00 PM | 9.0          | 8.1 | 30.8         | 29.7         | 2.6               | 2.5                        |
| WSR37    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:34:00 PM | 9.1          | 7.9 | 30.8         | 29.7         | 2.3               | 2.5                        |
| WSR37    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:34:00 PM | 9.1          | 7.9 | 30.9         | 29.6         | 2.3               | 4.0                        |
| WSR37    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.9          | 2:33:00 PM | 8.9          | 7.9 | 30.8         | 29.7         | 2.6               | 2.5                        |
| WSR37    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.9          | 2:33:00 PM | 8.8          | 7.9 | 30.8         | 29.6         | 2.2               | 3.0                        |
| WSR37    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.7          | 2:32:00 PM | 8.8          | 7.9 | 31.0         | 29.7         | 2.3               | 2.5                        |
| WSR37    | 20220901 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.7          | 2:32:00 PM | 8.8          | 8.0 | 30.8         | 29.7         | 2.1               | 3.0                        |
| CE       | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:25:00 PM | 8.2          | 8.1 | 30.2         | 30.0         | 3.0               | 9.0                        |
| CE       | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:25:00 PM | 8.2          | 8.2 | 30.1         | 30.0         | 3.1               | 10.0                       |
| CE       | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.6         | 3:24:00 PM | 8.2          | 8.1 | 30.2         | 30.0         | 3.5               | 8.0                        |
| CE       | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.6         | 3:24:00 PM | 8.3          | 8.2 | 30.1         | 30.0         | 3.4               | 6.0                        |
| CE       | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 20.2         | 3:23:00 PM | 8.3          | 8.2 | 30.2         | 29.9         | 3.7               | 7.0                        |
| CE       | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 20.2         | 3:23:00 PM | 8.3          | 8.2 | 30.2         | 29.9         | 3.6               | 4.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| CF       | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 5:58:00 PM | 9.1          | 8.1 | 30.2         | 29.9         | 2.8               | 7.0                        |
| CF       | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 5:58:00 PM | 9.1          | 8.1 | 30.2         | 30.0         | 2.8               | 6.0                        |
| CF       | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 9.7          | 5:57:00 PM | 9.0          | 8.0 | 30.2         | 30.0         | 3.1               | 2.5                        |
| CF       | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 9.7          | 5:57:00 PM | 9.0          | 8.0 | 30.2         | 30.0         | 3.0               | 2.5                        |
| CF       | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 18.3         | 5:56:00 PM | 9.1          | 8.1 | 30.2         | 29.9         | 3.3               | 3.0                        |
| CF       | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 18.3         | 5:56:00 PM | 9.1          | 8.0 | 30.2         | 29.9         | 3.3               | 4.0                        |
| WSR01    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 5:35:00 PM | 8.5          | 8.2 | 30.3         | 30.1         | 2.3               | 6.0                        |
| WSR01    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 5:35:00 PM | 8.7          | 8.2 | 30.2         | 30.1         | 2.3               | 3.0                        |
| WSR01    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.6          | 5:34:00 PM | 8.6          | 8.2 | 30.3         | 30.1         | 2.4               | 4.0                        |
| WSR01    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.6          | 5:34:00 PM | 8.5          | 8.2 | 30.3         | 30.0         | 2.4               | 5.0                        |
| WSR01    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.2          | 5:33:00 PM | 8.5          | 8.2 | 30.3         | 30.1         | 2.3               | 8.0                        |
| WSR01    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.2          | 5:33:00 PM | 8.5          | 8.2 | 30.4         | 30.0         | 2.4               | 11.0                       |
| WSR02    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 5:17:00 PM | 9.1          | 8.0 | 30.9         | 30.1         | 2.1               | 4.0                        |
| WSR02    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 5:17:00 PM | 9.2          | 8.0 | 30.9         | 30.2         | 2.0               | 3.0                        |
| WSR02    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.6          | 5:16:00 PM | 9.1          | 8.0 | 30.9         | 30.2         | 2.1               | 5.0                        |
| WSR02    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.6          | 5:16:00 PM | 9.1          | 8.0 | 31.0         | 30.2         | 2.1               | 4.0                        |
| WSR02    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.2          | 5:15:00 PM | 9.1          | 8.0 | 30.9         | 30.1         | 2.2               | 6.0                        |
| WSR02    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.2          | 5:15:00 PM | 9.1          | 8.0 | 31.0         | 30.2         | 2.2               | 3.0                        |
| WSR03    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 5:02:00 PM | 8.2          | 8.0 | 30.6         | 29.5         | 2.4               | 7.0                        |
| WSR03    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 5:02:00 PM | 8.3          | 8.0 | 30.6         | 29.5         | 2.4               | 6.0                        |
| WSR03    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.9          | 5:01:00 PM | 8.4          | 8.0 | 30.6         | 29.5         | 2.0               | 8.0                        |
| WSR03    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.9          | 5:01:00 PM | 8.5          | 8.0 | 30.6         | 29.5         | 2.3               | 9.0                        |
| WSR03    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.7          | 5:00:00 PM | 8.3          | 8.0 | 30.6         | 29.5         | 2.0               | 9.0                        |
| WSR03    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.7          | 5:00:00 PM | 8.5          | 8.0 | 30.5         | 29.5         | 1.9               | 7.0                        |
| WSR04    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:49:00 PM | 8.4          | 8.2 | 30.4         | 29.9         | 2.4               | 9.0                        |
| WSR04    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:49:00 PM | 8.3          | 8.2 | 30.6         | 30.0         | 2.4               | 6.0                        |
| WSR04    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.7          | 4:48:00 PM | 8.4          | 8.2 | 30.5         | 29.9         | 2.1               | 2.5                        |
| WSR04    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.7          | 4:48:00 PM | 8.5          | 8.2 | 30.5         | 29.9         | 2.3               | 3.0                        |
| WSR04    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.4          | 4:47:00 PM | 8.5          | 8.2 | 30.6         | 29.9         | 2.0               | 9.0                        |
| WSR04    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.4          | 4:47:00 PM | 8.4          | 8.2 | 30.5         | 30.0         | 2.0               | 9.0                        |
| WSR16    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:47:00 PM | 8.8          | 8.2 | 30.6         | 29.9         | 2.3               | 2.5                        |
| WSR16    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:47:00 PM | 8.7          | 8.2 | 30.6         | 29.9         | 2.3               | 2.5                        |
| WSR16    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 7.9          | 3:46:00 PM | 8.7          | 8.2 | 30.5         | 29.9         | 2.3               | 4.0                        |
| WSR16    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 7.9          | 3:46:00 PM | 8.6          | 8.2 | 30.6         | 29.9         | 2.3               | 4.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR16    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 14.7         | 3:45:00 PM  | 8.6          | 8.2 | 30.5         | 29.9         | 2.1               | 2.5                        |
| WSR16    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 14.7         | 3:45:00 PM  | 8.7          | 8.2 | 30.6         | 29.9         | 2.2               | 2.5                        |
| WSR33    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:35:00 PM  | 8.7          | 7.9 | 30.9         | 29.9         | 2.1               | 4.0                        |
| WSR33    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:35:00 PM  | 8.7          | 8.0 | 30.9         | 29.9         | 2.0               | 6.0                        |
| WSR33    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.7          | 4:34:00 PM  | 8.7          | 8.0 | 31.0         | 29.9         | 1.5               | 11.0                       |
| WSR33    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.7          | 4:34:00 PM  | 8.6          | 8.0 | 31.0         | 29.9         | 1.6               | 10.0                       |
| WSR33    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.3          | 4:33:00 PM  | 8.7          | 8.0 | 30.9         | 29.9         | 1.9               | 8.0                        |
| WSR33    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.3          | 4:33:00 PM  | 8.7          | 8.0 | 30.9         | 29.9         | 1.9               | 11.0                       |
| WSR36    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:21:00 PM  | 8.3          | 8.0 | 30.3         | 30.2         | 2.4               | 10.0                       |
| WSR36    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:21:00 PM  | 8.3          | 8.0 | 30.4         | 30.3         | 2.3               | 7.0                        |
| WSR36    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.3          | 4:21:00 PM  | 8.3          | 8.0 | 30.3         | 30.2         | 2.5               | 10.0                       |
| WSR36    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.3          | 4:21:00 PM  | 8.2          | 8.0 | 30.4         | 30.2         | 2.4               | 8.0                        |
| WSR36    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 5.5          | 4:20:00 PM  | 8.4          | 8.0 | 30.2         | 30.2         | 2.2               | 3.0                        |
| WSR36    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 5.5          | 4:20:00 PM  | 8.3          | 8.0 | 30.3         | 30.2         | 2.3               | 2.5                        |
| WSR37    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:09:00 PM  | 8.7          | 8.2 | 30.2         | 30.1         | 2.4               | 9.0                        |
| WSR37    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:09:00 PM  | 8.8          | 8.2 | 30.3         | 30.0         | 2.5               | 9.0                        |
| WSR37    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.4          | 4:08:00 PM  | 8.8          | 8.2 | 30.2         | 30.1         | 2.3               | 9.0                        |
| WSR37    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.4          | 4:08:00 PM  | 8.9          | 8.2 | 30.2         | 30.0         | 2.5               | 10.0                       |
| WSR37    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.7          | 4:07:00 PM  | 8.7          | 8.2 | 30.3         | 30.0         | 2.2               | 6.0                        |
| WSR37    | 20220903 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.7          | 4:07:00 PM  | 8.7          | 8.2 | 30.3         | 30.0         | 2.1               | 9.0                        |
| CE       | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:02:00 AM  | 8.9          | 8.3 | 31.8         | 29.6         | 3.3               | 7.0                        |
| CE       | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:02:00 AM  | 8.9          | 8.3 | 31.7         | 29.6         | 3.0               | 7.0                        |
| CE       | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 11.3         | 8:01:00 AM  | 9.0          | 8.3 | 31.6         | 29.6         | 3.3               | 7.0                        |
| CE       | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 11.3         | 8:01:00 AM  | 8.9          | 8.3 | 31.7         | 29.6         | 3.2               | 8.0                        |
| CE       | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 21.6         | 8:00:00 AM  | 9.0          | 8.3 | 31.7         | 29.6         | 3.5               | 7.0                        |
| CE       | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 21.6         | 8:00:00 AM  | 8.9          | 8.3 | 31.7         | 29.6         | 3.4               | 6.0                        |
| CF       | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:35:00 AM | 8.8          | 8.2 | 32.2         | 29.9         | 2.5               | 7.0                        |
| CF       | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:35:00 AM | 8.8          | 8.2 | 31.9         | 29.8         | 2.7               | 9.0                        |
| CF       | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 10.7         | 10:34:00 AM | 8.9          | 8.2 | 32.1         | 29.8         | 2.7               | 10.0                       |
| CF       | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 10.7         | 10:34:00 AM | 8.9          | 8.3 | 31.9         | 29.8         | 2.5               | 7.0                        |
| CF       | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 20.4         | 10:33:00 AM | 8.8          | 8.2 | 31.9         | 29.9         | 2.8               | 7.0                        |
| CF       | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 20.4         | 10:33:00 AM | 8.8          | 8.2 | 32.2         | 29.8         | 2.8               | 9.0                        |
| WSR01    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:12:00 AM | 8.3          | 8.2 | 31.6         | 29.6         | 1.9               | 7.0                        |
| WSR01    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:12:00 AM | 8.3          | 8.3 | 31.6         | 29.6         | 2.1               | 6.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR01    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.6          | 10:11:00 AM | 8.2          | 8.3 | 31.6         | 29.6         | 2.3               | 6.0                        |
| WSR01    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.6          | 10:11:00 AM | 8.3          | 8.3 | 31.6         | 29.6         | 2.4               | 8.0                        |
| WSR01    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.2          | 10:10:00 AM | 8.3          | 8.4 | 31.3         | 29.6         | 2.3               | 8.0                        |
| WSR01    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.2          | 10:10:00 AM | 8.3          | 8.4 | 31.6         | 29.7         | 2.1               | 10.0                       |
| WSR02    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:54:00 AM  | 8.2          | 8.2 | 31.1         | 29.1         | 1.9               | 9.0                        |
| WSR02    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:54:00 AM  | 8.4          | 8.2 | 31.3         | 29.1         | 2.1               | 7.0                        |
| WSR02    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.7          | 9:53:00 AM  | 8.3          | 8.2 | 31.2         | 29.1         | 2.2               | 9.0                        |
| WSR02    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.7          | 9:53:00 AM  | 8.4          | 8.2 | 31.2         | 29.1         | 2.2               | 8.0                        |
| WSR02    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.4          | 9:52:00 AM  | 8.3          | 8.2 | 31.1         | 29.1         | 2.1               | 11.0                       |
| WSR02    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.4          | 9:52:00 AM  | 8.4          | 8.2 | 31.1         | 29.1         | 2.2               | 12.0                       |
| WSR03    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:40:00 AM  | 8.6          | 8.2 | 31.4         | 30.3         | 2.5               | 11.0                       |
| WSR03    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:40:00 AM  | 8.8          | 8.3 | 31.1         | 30.3         | 2.3               | 11.0                       |
| WSR03    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.1          | 9:39:00 AM  | 8.7          | 8.2 | 31.2         | 30.3         | 2.2               | 6.0                        |
| WSR03    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.1          | 9:39:00 AM  | 8.8          | 8.2 | 31.5         | 30.3         | 2.5               | 9.0                        |
| WSR03    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.2          | 9:38:00 AM  | 8.6          | 8.2 | 31.3         | 30.3         | 2.4               | 7.0                        |
| WSR03    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.2          | 9:38:00 AM  | 8.6          | 8.3 | 31.3         | 30.3         | 2.2               | 8.0                        |
| WSR04    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:28:00 AM  | 8.2          | 8.2 | 31.4         | 29.9         | 2.7               | 9.0                        |
| WSR04    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:28:00 AM  | 8.2          | 8.3 | 31.3         | 29.9         | 2.4               | 6.0                        |
| WSR04    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.6          | 9:27:00 AM  | 8.2          | 8.3 | 31.2         | 29.9         | 2.3               | 8.0                        |
| WSR04    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.6          | 9:27:00 AM  | 8.2          | 8.2 | 31.3         | 29.9         | 2.2               | 7.0                        |
| WSR04    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.1          | 9:26:00 AM  | 8.3          | 8.3 | 31.5         | 29.9         | 2.0               | 5.0                        |
| WSR04    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.1          | 9:26:00 AM  | 8.2          | 8.3 | 31.6         | 29.9         | 2.3               | 9.0                        |
| WSR16    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:24:00 AM  | 9.1          | 8.3 | 31.2         | 29.3         | 2.5               | 7.0                        |
| WSR16    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:24:00 AM  | 9.1          | 8.4 | 31.3         | 29.3         | 2.1               | 7.0                        |
| WSR16    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 7.9          | 8:23:00 AM  | 9.2          | 8.3 | 31.4         | 29.3         | 2.3               | 7.0                        |
| WSR16    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 7.9          | 8:23:00 AM  | 9.1          | 8.3 | 31.5         | 29.3         | 2.3               | 7.0                        |
| WSR16    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 14.8         | 8:22:00 AM  | 9.1          | 8.3 | 31.2         | 29.3         | 2.1               | 2.5                        |
| WSR16    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 14.8         | 8:22:00 AM  | 9.2          | 8.3 | 31.4         | 29.3         | 1.8               | 3.0                        |
| WSR33    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:13:00 AM  | 8.2          | 8.2 | 31.8         | 30.2         | 2.1               | 7.0                        |
| WSR33    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:13:00 AM  | 8.2          | 8.2 | 31.8         | 30.2         | 2.2               | 7.0                        |
| WSR33    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.5          | 9:12:00 AM  | 8.3          | 8.2 | 31.7         | 30.3         | 2.2               | 7.0                        |
| WSR33    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.5          | 9:12:00 AM  | 8.2          | 8.2 | 31.8         | 30.3         | 2.1               | 7.0                        |
| WSR33    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.0          | 9:11:00 AM  | 8.2          | 8.2 | 31.8         | 30.3         | 2.1               | 9.0                        |
| WSR33    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.0          | 9:11:00 AM  | 8.3          | 8.2 | 31.7         | 30.2         | 2.3               | 7.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR36    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:58:00 AM  | 8.8          | 8.4 | 31.3         | 29.6         | 2.0               | 7.0                        |
| WSR36    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:58:00 AM  | 8.9          | 8.3 | 31.2         | 29.6         | 2.2               | 7.0                        |
| WSR36    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.8          | 8:58:00 AM  | 8.9          | 8.3 | 31.2         | 29.6         | 2.1               | 7.0                        |
| WSR36    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.8          | 8:58:00 AM  | 8.8          | 8.4 | 31.2         | 29.6         | 2.0               | 8.0                        |
| WSR36    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.6          | 8:57:00 AM  | 8.7          | 8.3 | 31.3         | 29.6         | 2.1               | 7.0                        |
| WSR36    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.6          | 8:57:00 AM  | 8.9          | 8.3 | 31.1         | 29.6         | 2.2               | 7.0                        |
| WSR37    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:45:00 AM  | 8.5          | 8.2 | 31.8         | 30.1         | 2.5               | 8.0                        |
| WSR37    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:45:00 AM  | 8.5          | 8.2 | 31.7         | 30.1         | 2.3               | 6.0                        |
| WSR37    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.4          | 8:44:00 AM  | 8.6          | 8.2 | 31.8         | 30.1         | 2.2               | 9.0                        |
| WSR37    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.4          | 8:44:00 AM  | 8.5          | 8.2 | 31.6         | 30.1         | 2.2               | 7.0                        |
| WSR37    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.7          | 8:43:00 AM  | 8.5          | 8.2 | 31.9         | 30.1         | 1.8               | 7.0                        |
| WSR37    | 20220906 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.7          | 8:43:00 AM  | 8.5          | 8.2 | 31.7         | 30.1         | 2.1               | 7.0                        |
| CE       | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:48:00 AM  | 8.4          | 8.3 | 30.2         | 28.3         | 3.3               | 3.0                        |
| CE       | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:48:00 AM  | 8.3          | 8.3 | 30.3         | 28.3         | 3.2               | 5.0                        |
| CE       | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 11.1         | 8:47:00 AM  | 8.3          | 8.3 | 30.3         | 28.3         | 3.2               | 2.5                        |
| CE       | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 11.1         | 8:47:00 AM  | 8.4          | 8.3 | 30.2         | 28.4         | 3.3               | 2.5                        |
| CE       | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 21.1         | 8:46:00 AM  | 8.4          | 8.3 | 30.3         | 28.3         | 3.7               | 4.0                        |
| CE       | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 21.1         | 8:46:00 AM  | 8.3          | 8.3 | 30.2         | 28.3         | 3.6               | 4.0                        |
| CF       | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:21:00 AM | 8.8          | 8.3 | 29.6         | 28.4         | 2.6               | 2.5                        |
| CF       | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:21:00 AM | 8.7          | 8.2 | 29.5         | 28.4         | 2.6               | 2.5                        |
| CF       | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 10.7         | 11:20:00 AM | 8.7          | 8.3 | 29.7         | 28.4         | 2.6               | 2.5                        |
| CF       | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 10.7         | 11:20:00 AM | 8.8          | 8.3 | 29.4         | 28.4         | 2.5               | 2.5                        |
| CF       | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 20.3         | 11:19:00 AM | 8.9          | 8.3 | 29.6         | 28.4         | 2.9               | 5.0                        |
| CF       | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 20.3         | 11:19:00 AM | 8.8          | 8.3 | 29.5         | 28.4         | 2.8               | 3.0                        |
| WSR01    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:57:00 AM | 8.2          | 8.1 | 30.0         | 27.9         | 2.5               | 2.5                        |
| WSR01    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:57:00 AM | 8.2          | 8.1 | 29.9         | 27.8         | 2.4               | 3.0                        |
| WSR01    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.6          | 10:56:00 AM | 8.2          | 8.1 | 29.9         | 27.9         | 2.2               | 3.0                        |
| WSR01    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.6          | 10:56:00 AM | 8.2          | 8.2 | 30.0         | 27.8         | 2.1               | 3.0                        |
| WSR01    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.1          | 10:55:00 AM | 8.4          | 8.1 | 29.9         | 27.8         | 2.2               | 4.0                        |
| WSR01    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.1          | 10:55:00 AM | 8.2          | 8.1 | 30.0         | 27.8         | 2.3               | 6.0                        |
| WSR02    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:38:00 AM | 8.6          | 8.2 | 29.7         | 28.3         | 2.3               | 2.5                        |
| WSR02    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:38:00 AM | 8.5          | 8.3 | 29.6         | 28.3         | 2.4               | 3.0                        |
| WSR02    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 5.0          | 10:37:00 AM | 8.6          | 8.3 | 29.4         | 28.4         | 2.5               | 4.0                        |
| WSR02    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 5.0          | 10:37:00 AM | 8.6          | 8.3 | 29.5         | 28.4         | 2.3               | 6.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR02    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.9          | 10:36:00 AM | 8.7          | 8.2 | 29.6         | 28.4         | 2.1               | 3.0                        |
| WSR02    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.9          | 10:36:00 AM | 8.6          | 8.3 | 29.6         | 28.4         | 2.2               | 3.0                        |
| WSR03    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:23:00 AM | 8.7          | 8.1 | 29.9         | 28.1         | 2.7               | 3.0                        |
| WSR03    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:23:00 AM | 8.8          | 8.1 | 30.0         | 28.2         | 2.4               | 2.5                        |
| WSR03    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.0          | 10:22:00 AM | 8.6          | 8.1 | 30.0         | 28.2         | 2.1               | 2.5                        |
| WSR03    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.0          | 10:22:00 AM | 8.8          | 8.1 | 29.8         | 28.1         | 2.3               | 2.5                        |
| WSR03    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.0          | 10:21:00 AM | 8.6          | 8.1 | 29.8         | 28.1         | 2.3               | 3.0                        |
| WSR03    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.0          | 10:21:00 AM | 8.7          | 8.1 | 30.0         | 28.1         | 2.2               | 2.5                        |
| WSR04    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:11:00 AM | 8.3          | 8.2 | 29.8         | 27.7         | 2.3               | 7.0                        |
| WSR04    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:11:00 AM | 8.2          | 8.2 | 29.6         | 27.7         | 2.7               | 10.0                       |
| WSR04    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.6          | 10:10:00 AM | 8.1          | 8.3 | 29.8         | 27.7         | 2.2               | 8.0                        |
| WSR04    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.6          | 10:10:00 AM | 8.2          | 8.2 | 29.6         | 27.7         | 2.5               | 8.0                        |
| WSR04    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.1          | 10:09:00 AM | 8.1          | 8.2 | 29.6         | 27.7         | 2.1               | 9.0                        |
| WSR04    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.1          | 10:09:00 AM | 8.1          | 8.3 | 29.6         | 27.7         | 2.2               | 6.0                        |
| WSR16    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:10:00 AM  | 8.6          | 8.2 | 30.1         | 28.4         | 2.3               | 9.0                        |
| WSR16    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:10:00 AM  | 8.7          | 8.3 | 30.1         | 28.5         | 2.4               | 6.0                        |
| WSR16    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 8.4          | 9:09:00 AM  | 8.6          | 8.3 | 30.1         | 28.4         | 2.1               | 11.0                       |
| WSR16    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 8.4          | 9:09:00 AM  | 8.8          | 8.3 | 30.0         | 28.4         | 2.3               | 11.0                       |
| WSR16    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 15.8         | 9:08:00 AM  | 8.8          | 8.3 | 30.2         | 28.5         | 2.2               | 6.0                        |
| WSR16    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 15.8         | 9:08:00 AM  | 8.7          | 8.2 | 30.3         | 28.4         | 2.4               | 6.0                        |
| WSR33    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:57:00 AM  | 8.6          | 8.2 | 30.2         | 28.2         | 2.3               | 12.0                       |
| WSR33    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:57:00 AM  | 8.7          | 8.2 | 30.3         | 28.2         | 2.5               | 10.0                       |
| WSR33    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.6          | 9:56:00 AM  | 8.5          | 8.2 | 30.3         | 28.2         | 2.3               | 2.5                        |
| WSR33    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.6          | 9:56:00 AM  | 8.5          | 8.2 | 30.1         | 28.1         | 2.1               | 3.0                        |
| WSR33    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.2          | 9:55:00 AM  | 8.5          | 8.2 | 30.1         | 28.1         | 2.2               | 6.0                        |
| WSR33    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.2          | 9:55:00 AM  | 8.6          | 8.2 | 30.2         | 28.2         | 2.4               | 5.0                        |
| WSR36    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:43:00 AM  | 8.5          | 8.3 | 29.4         | 28.1         | 2.6               | 8.0                        |
| WSR36    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:43:00 AM  | 8.5          | 8.3 | 29.4         | 28.1         | 2.3               | 12.0                       |
| WSR36    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.1          | 9:43:00 AM  | 8.5          | 8.3 | 29.6         | 28.1         | 2.2               | 5.0                        |
| WSR36    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.1          | 9:43:00 AM  | 8.5          | 8.2 | 29.6         | 28.0         | 2.2               | 3.0                        |
| WSR36    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 5.1          | 9:42:00 AM  | 8.5          | 8.3 | 29.6         | 28.0         | 2.1               | 4.0                        |
| WSR36    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 5.1          | 9:42:00 AM  | 8.5          | 8.2 | 29.5         | 28.0         | 2.1               | 2.5                        |
| WSR37    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:31:00 AM  | 8.5          | 8.3 | 29.7         | 27.8         | 2.1               | 2.5                        |
| WSR37    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:31:00 AM  | 8.4          | 8.3 | 29.6         | 27.9         | 2.0               | 3.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR37    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.1          | 9:30:00 AM  | 8.5          | 8.3 | 29.9         | 27.9         | 2.3               | 5.0                        |
| WSR37    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.1          | 9:30:00 AM  | 8.4          | 8.3 | 29.8         | 27.9         | 2.3               | 5.0                        |
| WSR37    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.1          | 9:29:00 AM  | 8.5          | 8.3 | 29.7         | 27.8         | 2.4               | 4.0                        |
| WSR37    | 20220908 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.1          | 9:29:00 AM  | 8.4          | 8.3 | 29.8         | 27.8         | 2.2               | 5.0                        |
| CE       | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:25:00 AM | 8.3          | 8.3 | 29.8         | 30.3         | 3.4               | 6.0                        |
| CE       | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:25:00 AM | 8.2          | 8.2 | 29.8         | 30.4         | 3.6               | 5.0                        |
| CE       | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.5         | 10:24:00 AM | 8.2          | 8.2 | 29.9         | 30.4         | 3.8               | 5.0                        |
| CE       | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.5         | 10:24:00 AM | 8.1          | 8.2 | 30.1         | 30.3         | 3.7               | 3.0                        |
| CE       | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 20.0         | 10:23:00 AM | 8.2          | 8.3 | 29.7         | 30.4         | 3.8               | 7.0                        |
| CE       | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 20.0         | 10:23:00 AM | 8.2          | 8.2 | 29.8         | 30.3         | 4.0               | 6.0                        |
| CF       | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:59:00 PM | 8.8          | 8.2 | 29.9         | 30.4         | 2.6               | 6.0                        |
| CF       | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:59:00 PM | 8.6          | 8.3 | 29.9         | 30.4         | 2.5               | 4.0                        |
| CF       | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.8         | 12:58:00 PM | 8.6          | 8.3 | 29.9         | 30.5         | 2.7               | 6.0                        |
| CF       | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.8         | 12:58:00 PM | 8.6          | 8.3 | 29.9         | 30.5         | 2.9               | 6.0                        |
| CF       | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 20.5         | 12:57:00 PM | 8.6          | 8.3 | 29.6         | 30.4         | 3.3               | 5.0                        |
| CF       | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 20.5         | 12:57:00 PM | 8.8          | 8.2 | 30.0         | 30.5         | 2.9               | 5.0                        |
| WSR01    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:36:00 PM | 8.8          | 8.1 | 30.3         | 30.0         | 2.1               | 8.0                        |
| WSR01    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:36:00 PM | 8.6          | 8.2 | 30.4         | 30.1         | 2.5               | 6.0                        |
| WSR01    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.6          | 12:35:00 PM | 8.8          | 8.1 | 30.4         | 30.0         | 2.3               | 6.0                        |
| WSR01    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.6          | 12:35:00 PM | 8.6          | 8.2 | 30.2         | 29.9         | 2.4               | 7.0                        |
| WSR01    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.1          | 12:34:00 PM | 8.5          | 8.2 | 30.4         | 30.1         | 2.3               | 2.5                        |
| WSR01    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.1          | 12:34:00 PM | 8.8          | 8.2 | 30.1         | 30.0         | 2.5               | 4.0                        |
| WSR02    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:17:00 PM | 8.3          | 8.2 | 29.6         | 30.3         | 2.3               | 7.0                        |
| WSR02    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:17:00 PM | 8.2          | 8.2 | 30.0         | 30.4         | 2.1               | 7.0                        |
| WSR02    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.7          | 12:16:00 PM | 8.4          | 8.1 | 29.8         | 30.4         | 2.0               | 2.5                        |
| WSR02    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.7          | 12:16:00 PM | 8.3          | 8.2 | 29.7         | 30.3         | 2.5               | 2.5                        |
| WSR02    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.3          | 12:15:00 PM | 8.4          | 8.2 | 29.9         | 30.4         | 1.9               | 4.0                        |
| WSR02    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.3          | 12:15:00 PM | 8.3          | 8.2 | 29.7         | 30.4         | 2.7               | 7.0                        |
| WSR03    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:02:00 PM | 8.3          | 8.1 | 29.9         | 30.1         | 1.7               | 4.0                        |
| WSR03    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:02:00 PM | 8.4          | 8.2 | 29.9         | 30.0         | 2.4               | 8.0                        |
| WSR03    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.0          | 12:01:00 PM | 8.4          | 8.1 | 29.7         | 29.9         | 2.4               | 6.0                        |
| WSR03    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.0          | 12:01:00 PM | 8.3          | 8.1 | 29.8         | 30.1         | 2.4               | 7.0                        |
| WSR03    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.0          | 12:00:00 PM | 8.4          | 8.1 | 29.7         | 30.0         | 2.3               | 4.0                        |
| WSR03    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.0          | 12:00:00 PM | 8.5          | 8.1 | 30.0         | 30.0         | 2.2               | 8.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR04    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:50:00 AM | 8.6          | 8.2 | 29.7         | 30.0         | 2.0               | 10.0                       |
| WSR04    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:50:00 AM | 8.7          | 8.2 | 29.5         | 29.9         | 2.3               | 11.0                       |
| WSR04    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.8          | 11:49:00 AM | 8.6          | 8.3 | 29.7         | 30.0         | 1.5               | 10.0                       |
| WSR04    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.8          | 11:49:00 AM | 8.7          | 8.2 | 29.5         | 29.9         | 1.7               | 8.0                        |
| WSR04    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.5          | 11:48:00 AM | 8.6          | 8.2 | 29.8         | 30.0         | 2.0               | 10.0                       |
| WSR04    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.5          | 11:48:00 AM | 8.6          | 8.2 | 29.7         | 29.9         | 2.0               | 12.0                       |
| WSR16    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:47:00 AM | 8.1          | 8.2 | 29.9         | 30.4         | 2.3               | 9.0                        |
| WSR16    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:47:00 AM | 8.2          | 8.2 | 29.9         | 30.4         | 2.4               | 8.0                        |
| WSR16    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 8.2          | 10:46:00 AM | 8.2          | 8.2 | 29.7         | 30.3         | 2.0               | 6.0                        |
| WSR16    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 8.2          | 10:46:00 AM | 8.3          | 8.2 | 29.9         | 30.3         | 2.1               | 7.0                        |
| WSR16    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 15.4         | 10:45:00 AM | 8.2          | 8.2 | 29.9         | 30.4         | 2.4               | 4.0                        |
| WSR16    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 15.4         | 10:45:00 AM | 8.1          | 8.2 | 29.7         | 30.4         | 2.5               | 3.0                        |
| WSR33    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:35:00 AM | 8.6          | 8.2 | 30.0         | 30.5         | 2.2               | 7.0                        |
| WSR33    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:35:00 AM | 8.8          | 8.1 | 30.1         | 30.4         | 2.3               | 8.0                        |
| WSR33    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.7          | 11:34:00 AM | 8.8          | 8.1 | 30.1         | 30.5         | 2.1               | 7.0                        |
| WSR33    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.7          | 11:34:00 AM | 8.8          | 8.1 | 30.2         | 30.5         | 2.3               | 6.0                        |
| WSR33    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.4          | 11:33:00 AM | 8.5          | 8.1 | 30.0         | 30.4         | 2.1               | 6.0                        |
| WSR33    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.4          | 11:33:00 AM | 8.8          | 8.1 | 30.1         | 30.5         | 2.3               | 9.0                        |
| WSR36    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:21:00 AM | 8.6          | 8.3 | 29.5         | 30.4         | 2.3               | 10.0                       |
| WSR36    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:21:00 AM | 8.6          | 8.3 | 29.8         | 30.4         | 2.5               | 8.0                        |
| WSR36    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.7          | 11:21:00 AM | 8.5          | 8.3 | 29.6         | 30.4         | 1.8               | 6.0                        |
| WSR36    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.7          | 11:21:00 AM | 8.6          | 8.3 | 29.5         | 30.4         | 2.0               | 6.0                        |
| WSR36    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.3          | 11:20:00 AM | 8.7          | 8.2 | 29.6         | 30.3         | 1.9               | 9.0                        |
| WSR36    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.3          | 11:20:00 AM | 8.6          | 8.2 | 29.5         | 30.5         | 1.8               | 7.0                        |
| WSR37    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:08:00 AM | 8.8          | 8.1 | 30.0         | 30.0         | 1.9               | 6.0                        |
| WSR37    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:08:00 AM | 8.8          | 8.1 | 30.3         | 29.9         | 1.9               | 8.0                        |
| WSR37    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.0          | 11:07:00 AM | 8.8          | 8.1 | 30.1         | 29.9         | 2.3               | 8.0                        |
| WSR37    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.0          | 11:07:00 AM | 8.8          | 8.1 | 29.9         | 30.0         | 2.0               | 5.0                        |
| WSR37    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.0          | 11:06:00 AM | 8.8          | 8.1 | 30.0         | 30.0         | 2.4               | 6.0                        |
| WSR37    | 20220910 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.0          | 11:06:00 AM | 8.8          | 8.1 | 30.1         | 30.0         | 2.4               | 8.0                        |
| CE       | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:26:00 PM | 8.6          | 8.3 | 31.1         | 30.6         | 3.7               | 2.5                        |
| CE       | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:26:00 PM | 8.7          | 8.3 | 31.0         | 30.6         | 3.8               | 4.0                        |
| CE       | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 12.1         | 12:25:00 PM | 8.6          | 8.3 | 31.0         | 30.6         | 4.1               | 3.0                        |
| CE       | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 12.1         | 12:25:00 PM | 8.8          | 8.3 | 31.1         | 30.6         | 3.8               | 2.5                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| CE       | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 23.1         | 12:24:00 PM | 8.7          | 8.3 | 31.0         | 30.6         | 4.3               | 3.0                        |
| CE       | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 23.1         | 12:24:00 PM | 8.6          | 8.3 | 31.1         | 30.6         | 3.9               | 2.5                        |
| CF       | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:57:00 PM  | 8.3          | 8.2 | 30.9         | 30.3         | 3.0               | 2.5                        |
| CF       | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:57:00 PM  | 8.2          | 8.2 | 30.9         | 30.3         | 3.2               | 2.5                        |
| CF       | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.5         | 2:56:00 PM  | 8.4          | 8.2 | 31.0         | 30.3         | 2.9               | 4.0                        |
| CF       | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.5         | 2:56:00 PM  | 8.4          | 8.2 | 31.0         | 30.3         | 2.9               | 3.0                        |
| CF       | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 19.9         | 2:55:00 PM  | 8.4          | 8.2 | 30.9         | 30.3         | 3.4               | 4.0                        |
| CF       | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 19.9         | 2:55:00 PM  | 8.3          | 8.1 | 31.1         | 30.4         | 3.6               | 2.5                        |
| WSR01    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:34:00 PM  | 8.2          | 8.3 | 30.8         | 30.4         | 2.1               | 4.0                        |
| WSR01    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:34:00 PM  | 8.1          | 8.3 | 30.7         | 30.5         | 2.3               | 5.0                        |
| WSR01    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.8          | 2:33:00 PM  | 8.3          | 8.3 | 30.6         | 30.5         | 2.4               | 8.0                        |
| WSR01    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.8          | 2:33:00 PM  | 8.2          | 8.3 | 30.6         | 30.5         | 2.5               | 6.0                        |
| WSR01    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.5          | 2:32:00 PM  | 8.4          | 8.3 | 30.7         | 30.5         | 2.3               | 15.0                       |
| WSR01    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.5          | 2:32:00 PM  | 8.3          | 8.3 | 30.6         | 30.5         | 2.2               | 17.0                       |
| WSR02    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:17:00 PM  | 8.1          | 8.3 | 31.1         | 30.0         | 2.1               | 14.0                       |
| WSR02    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:17:00 PM  | 8.1          | 8.3 | 31.0         | 30.0         | 2.3               | 15.0                       |
| WSR02    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.6          | 2:16:00 PM  | 8.2          | 8.3 | 31.0         | 30.0         | 2.4               | 20.0                       |
| WSR02    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.6          | 2:16:00 PM  | 8.3          | 8.3 | 31.1         | 30.0         | 2.5               | 19.0                       |
| WSR02    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.1          | 2:15:00 PM  | 8.2          | 8.3 | 31.1         | 30.0         | 2.0               | 20.0                       |
| WSR02    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.1          | 2:15:00 PM  | 8.2          | 8.3 | 31.0         | 30.0         | 2.2               | 19.0                       |
| WSR03    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:02:00 PM  | 8.3          | 8.1 | 31.2         | 30.2         | 2.5               | 21.0                       |
| WSR03    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:02:00 PM  | 8.3          | 8.2 | 31.1         | 30.2         | 2.3               | 18.0                       |
| WSR03    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.8          | 2:01:00 PM  | 8.2          | 8.2 | 30.9         | 30.2         | 2.4               | 20.0                       |
| WSR03    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.8          | 2:01:00 PM  | 8.2          | 8.2 | 31.1         | 30.2         | 2.4               | 19.0                       |
| WSR03    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.6          | 2:00:00 PM  | 8.3          | 8.2 | 31.1         | 30.2         | 2.1               | 21.0                       |
| WSR03    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.6          | 2:00:00 PM  | 8.3          | 8.1 | 30.9         | 30.2         | 2.2               | 20.0                       |
| WSR04    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:49:00 PM  | 8.9          | 8.2 | 30.7         | 30.1         | 2.6               | 18.0                       |
| WSR04    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:49:00 PM  | 9.0          | 8.2 | 30.7         | 30.0         | 2.4               | 17.0                       |
| WSR04    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.6          | 1:48:00 PM  | 8.9          | 8.2 | 30.7         | 30.1         | 2.2               | 3.0                        |
| WSR04    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.6          | 1:48:00 PM  | 9.1          | 8.2 | 30.7         | 30.0         | 2.3               | 3.0                        |
| WSR04    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.1          | 1:47:00 PM  | 9.1          | 8.3 | 30.7         | 30.0         | 2.5               | 2.5                        |
| WSR04    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.1          | 1:47:00 PM  | 8.9          | 8.2 | 30.7         | 30.1         | 2.5               | 2.5                        |
| WSR16    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:47:00 PM | 8.6          | 8.2 | 31.2         | 30.7         | 1.7               | 2.5                        |
| WSR16    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:47:00 PM | 8.6          | 8.2 | 31.2         | 30.7         | 2.0               | 2.5                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR16    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 8.3          | 12:46:00 PM | 8.6          | 8.2 | 31.3         | 30.6         | 2.0               | 2.5                        |
| WSR16    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 8.3          | 12:46:00 PM | 8.5          | 8.2 | 31.4         | 30.7         | 1.9               | 3.0                        |
| WSR16    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 15.6         | 12:45:00 PM | 8.5          | 8.1 | 31.3         | 30.7         | 2.2               | 4.0                        |
| WSR16    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 15.6         | 12:45:00 PM | 8.5          | 8.1 | 31.1         | 30.7         | 2.3               | 4.0                        |
| WSR33    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:35:00 PM  | 8.6          | 8.3 | 31.2         | 30.6         | 2.4               | 5.0                        |
| WSR33    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:35:00 PM  | 8.4          | 8.3 | 31.1         | 30.5         | 2.4               | 4.0                        |
| WSR33    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.5          | 1:34:00 PM  | 8.4          | 8.3 | 31.2         | 30.5         | 2.5               | 2.5                        |
| WSR33    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.5          | 1:34:00 PM  | 8.5          | 8.3 | 31.2         | 30.5         | 2.4               | 2.5                        |
| WSR33    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.0          | 1:33:00 PM  | 8.4          | 8.3 | 31.2         | 30.5         | 2.4               | 3.0                        |
| WSR33    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.0          | 1:33:00 PM  | 8.6          | 8.3 | 31.1         | 30.6         | 2.3               | 2.5                        |
| WSR36    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:21:00 PM  | 8.5          | 8.3 | 30.9         | 30.0         | 1.9               | 3.0                        |
| WSR36    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:21:00 PM  | 8.7          | 8.3 | 30.6         | 30.0         | 1.6               | 2.5                        |
| WSR36    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.5          | 1:21:00 PM  | 8.8          | 8.3 | 30.9         | 30.0         | 1.6               | 2.5                        |
| WSR36    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.5          | 1:21:00 PM  | 8.8          | 8.3 | 30.8         | 30.0         | 1.8               | 2.0                        |
| WSR36    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 5.9          | 1:20:00 PM  | 8.7          | 8.2 | 30.7         | 30.0         | 2.0               | 2.5                        |
| WSR36    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 5.9          | 1:20:00 PM  | 8.6          | 8.3 | 30.9         | 30.0         | 2.2               | 4.0                        |
| WSR37    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:08:00 PM  | 8.6          | 8.2 | 31.1         | 29.9         | 2.4               | 3.0                        |
| WSR37    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:08:00 PM  | 8.4          | 8.2 | 31.2         | 29.9         | 2.3               | 3.0                        |
| WSR37    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.3          | 1:07:00 PM  | 8.6          | 8.2 | 31.2         | 29.9         | 2.3               | 2.5                        |
| WSR37    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.3          | 1:07:00 PM  | 8.7          | 8.2 | 31.3         | 29.8         | 2.5               | 3.0                        |
| WSR37    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.6          | 1:06:00 PM  | 8.6          | 8.2 | 31.2         | 29.9         | 2.3               | 2.5                        |
| WSR37    | 20220913 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.6          | 1:06:00 PM  | 8.5          | 8.2 | 31.1         | 29.9         | 2.2               | 3.0                        |
| CE       | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:36:00 PM  | 9.2          | 8.4 | 33.2         | 30.4         | 3.7               | 8.0                        |
| CE       | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:36:00 PM  | 9.0          | 8.4 | 33.2         | 30.5         | 3.4               | 9.0                        |
| CE       | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 11.3         | 1:35:00 PM  | 9.1          | 8.4 | 33.1         | 30.4         | 4.0               | 8.0                        |
| CE       | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 11.3         | 1:35:00 PM  | 9.2          | 8.4 | 33.0         | 30.4         | 3.9               | 9.0                        |
| CE       | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 21.6         | 1:34:00 PM  | 9.1          | 8.4 | 33.0         | 30.4         | 4.5               | 9.0                        |
| CE       | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 21.6         | 1:34:00 PM  | 9.3          | 8.4 | 33.2         | 30.5         | 4.2               | 12.0                       |
| CF       | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:11:00 PM  | 9.5          | 8.2 | 32.6         | 30.5         | 3.0               | 10.0                       |
| CF       | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:11:00 PM  | 9.5          | 8.2 | 32.7         | 30.6         | 2.8               | 11.0                       |
| CF       | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.6         | 4:10:00 PM  | 9.5          | 8.2 | 32.6         | 30.5         | 3.1               | 11.0                       |
| CF       | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.6         | 4:10:00 PM  | 9.7          | 8.2 | 32.7         | 30.5         | 2.9               | 10.0                       |
| CF       | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 20.2         | 4:09:00 PM  | 9.7          | 8.2 | 32.6         | 30.6         | 3.4               | 9.0                        |
| CF       | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 20.2         | 4:09:00 PM  | 9.4          | 8.2 | 32.7         | 30.5         | 3.3               | 7.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR01    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:48:00 PM | 9.8          | 8.4 | 33.5         | 30.8         | 2.0               | 6.0                        |
| WSR01    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:48:00 PM | 9.7          | 8.4 | 33.6         | 30.7         | 2.0               | 7.0                        |
| WSR01    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.7          | 3:47:00 PM | 9.7          | 8.4 | 33.4         | 30.7         | 2.2               | 10.0                       |
| WSR01    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.7          | 3:47:00 PM | 9.7          | 8.4 | 33.6         | 30.7         | 2.3               | 12.0                       |
| WSR01    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.3          | 3:46:00 PM | 9.6          | 8.4 | 33.5         | 30.7         | 2.3               | 12.0                       |
| WSR01    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.3          | 3:46:00 PM | 9.7          | 8.4 | 33.5         | 30.7         | 2.4               | 10.0                       |
| WSR02    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:30:00 PM | 9.2          | 8.2 | 32.8         | 30.7         | 2.4               | 10.0                       |
| WSR02    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:30:00 PM | 9.2          | 8.2 | 32.8         | 30.6         | 2.1               | 9.0                        |
| WSR02    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.6          | 3:29:00 PM | 9.0          | 8.2 | 32.8         | 30.6         | 2.3               | 8.0                        |
| WSR02    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.6          | 3:29:00 PM | 9.2          | 8.2 | 32.7         | 30.7         | 2.3               | 9.0                        |
| WSR02    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.2          | 3:28:00 PM | 9.2          | 8.3 | 32.9         | 30.6         | 2.3               | 11.0                       |
| WSR02    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.2          | 3:28:00 PM | 9.1          | 8.2 | 32.8         | 30.7         | 2.1               | 9.0                        |
| WSR03    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:15:00 PM | 9.2          | 8.3 | 33.4         | 30.8         | 1.9               | 11.0                       |
| WSR03    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:15:00 PM | 9.3          | 8.3 | 33.4         | 30.8         | 2.2               | 9.0                        |
| WSR03    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.9          | 3:14:00 PM | 9.2          | 8.3 | 33.3         | 30.8         | 2.0               | 10.0                       |
| WSR03    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.9          | 3:14:00 PM | 9.4          | 8.3 | 33.5         | 30.8         | 2.4               | 8.0                        |
| WSR03    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.7          | 3:13:00 PM | 9.4          | 8.2 | 33.4         | 30.8         | 2.2               | 9.0                        |
| WSR03    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.7          | 3:13:00 PM | 9.4          | 8.3 | 33.4         | 30.8         | 2.2               | 10.0                       |
| WSR04    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:02:00 PM | 8.5          | 8.3 | 32.7         | 30.3         | 2.3               | 10.0                       |
| WSR04    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:02:00 PM | 8.7          | 8.4 | 32.8         | 30.3         | 2.5               | 10.0                       |
| WSR04    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.8          | 3:01:00 PM | 8.6          | 8.3 | 32.7         | 30.3         | 2.2               | 11.0                       |
| WSR04    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.8          | 3:01:00 PM | 8.5          | 8.4 | 32.7         | 30.3         | 2.2               | 10.0                       |
| WSR04    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.6          | 3:00:00 PM | 8.5          | 8.4 | 32.8         | 30.3         | 2.4               | 10.0                       |
| WSR04    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.6          | 3:00:00 PM | 8.6          | 8.3 | 32.8         | 30.3         | 2.2               | 11.0                       |
| WSR16    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:58:00 PM | 9.3          | 8.4 | 33.5         | 30.9         | 2.8               | 9.0                        |
| WSR16    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:58:00 PM | 9.3          | 8.4 | 33.4         | 30.8         | 2.5               | 9.0                        |
| WSR16    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 8.4          | 1:57:00 PM | 9.3          | 8.4 | 33.5         | 30.9         | 2.1               | 9.0                        |
| WSR16    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 8.4          | 1:57:00 PM | 9.3          | 8.4 | 33.4         | 30.8         | 2.0               | 10.0                       |
| WSR16    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 15.8         | 1:56:00 PM | 9.4          | 8.4 | 33.4         | 30.8         | 2.3               | 10.0                       |
| WSR16    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 15.8         | 1:56:00 PM | 9.1          | 8.4 | 33.4         | 30.9         | 2.1               | 7.0                        |
| WSR33    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:47:00 PM | 9.0          | 8.3 | 32.9         | 30.9         | 2.5               | 10.0                       |
| WSR33    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:47:00 PM | 9.0          | 8.4 | 32.8         | 30.9         | 2.3               | 9.0                        |
| WSR33    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.7          | 2:46:00 PM | 9.1          | 8.4 | 32.9         | 30.8         | 2.1               | 9.0                        |
| WSR33    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.7          | 2:46:00 PM | 9.1          | 8.4 | 32.8         | 30.8         | 2.1               | 11.0                       |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR33    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.3          | 2:45:00 PM | 9.0          | 8.3 | 32.9         | 30.8         | 2.2               | 7.0                        |
| WSR33    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.3          | 2:45:00 PM | 8.9          | 8.3 | 32.8         | 30.9         | 2.5               | 9.0                        |
| WSR36    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:32:00 PM | 9.1          | 8.3 | 32.9         | 30.4         | 2.5               | 9.0                        |
| WSR36    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:32:00 PM | 9.1          | 8.4 | 33.0         | 30.4         | 2.7               | 11.0                       |
| WSR36    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.5          | 2:32:00 PM | 9.1          | 8.4 | 33.0         | 30.4         | 2.2               | 7.0                        |
| WSR36    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.5          | 2:32:00 PM | 9.0          | 8.4 | 32.8         | 30.5         | 2.5               | 6.0                        |
| WSR36    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.0          | 2:31:00 PM | 9.2          | 8.4 | 32.8         | 30.4         | 2.3               | 10.0                       |
| WSR36    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.0          | 2:31:00 PM | 9.0          | 8.4 | 33.0         | 30.5         | 2.2               | 11.0                       |
| WSR37    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:19:00 PM | 8.8          | 8.4 | 32.7         | 30.6         | 2.7               | 8.0                        |
| WSR37    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:19:00 PM | 8.8          | 8.4 | 32.7         | 30.6         | 2.2               | 6.0                        |
| WSR37    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.1          | 2:18:00 PM | 9.0          | 8.4 | 32.8         | 30.6         | 2.4               | 9.0                        |
| WSR37    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.1          | 2:18:00 PM | 8.7          | 8.3 | 32.9         | 30.6         | 2.4               | 9.0                        |
| WSR37    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.1          | 2:17:00 PM | 9.0          | 8.4 | 32.8         | 30.7         | 2.3               | 8.0                        |
| WSR37    | 20220915 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.1          | 2:17:00 PM | 8.9          | 8.4 | 32.7         | 30.7         | 2.4               | 11.0                       |
| CE       | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:17:00 PM | 8.9          | 8.2 | 33.5         | 29.3         | 3.4               | 2.5                        |
| CE       | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:17:00 PM | 8.8          | 8.2 | 33.4         | 29.3         | 3.2               | 2.5                        |
| CE       | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.6         | 3:16:00 PM | 9.0          | 8.3 | 33.4         | 29.3         | 3.6               | 2.5                        |
| CE       | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.6         | 3:16:00 PM | 9.0          | 8.2 | 33.3         | 29.3         | 3.8               | 2.5                        |
| CE       | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 20.1         | 3:15:00 PM | 8.9          | 8.2 | 33.4         | 29.3         | 3.7               | 7.0                        |
| CE       | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 20.1         | 3:15:00 PM | 9.0          | 8.2 | 33.2         | 29.4         | 3.8               | 7.0                        |
| CF       | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 5:53:00 PM | 9.4          | 8.3 | 33.4         | 29.0         | 3.0               | 6.0                        |
| CF       | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 5:53:00 PM | 9.3          | 8.3 | 33.6         | 29.0         | 3.2               | 8.0                        |
| CF       | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.4         | 5:52:00 PM | 9.2          | 8.3 | 33.6         | 29.1         | 3.2               | 3.0                        |
| CF       | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.4         | 5:52:00 PM | 9.2          | 8.3 | 33.7         | 29.0         | 3.0               | 2.5                        |
| CF       | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 19.7         | 5:51:00 PM | 9.4          | 8.3 | 33.7         | 29.1         | 3.5               | 2.5                        |
| CF       | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 19.7         | 5:51:00 PM | 9.3          | 8.2 | 33.8         | 29.0         | 3.2               | 2.5                        |
| WSR01    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 5:30:00 PM | 9.1          | 8.3 | 33.1         | 29.5         | 2.1               | 3.0                        |
| WSR01    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 5:30:00 PM | 9.1          | 8.3 | 33.3         | 29.5         | 2.3               | 3.0                        |
| WSR01    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.7          | 5:29:00 PM | 9.0          | 8.3 | 33.0         | 29.5         | 1.9               | 2.5                        |
| WSR01    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.7          | 5:29:00 PM | 9.1          | 8.3 | 33.3         | 29.4         | 1.9               | 3.0                        |
| WSR01    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.4          | 5:28:00 PM | 9.1          | 8.3 | 33.1         | 29.5         | 2.0               | 3.0                        |
| WSR01    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.4          | 5:28:00 PM | 9.1          | 8.3 | 33.0         | 29.5         | 2.0               | 2.5                        |
| WSR02    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 5:12:00 PM | 8.9          | 8.2 | 33.4         | 29.4         | 1.9               | 3.0                        |
| WSR02    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 5:12:00 PM | 9.0          | 8.2 | 33.6         | 29.4         | 2.0               | 2.5                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR02    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.9          | 5:11:00 PM | 9.1          | 8.3 | 33.4         | 29.4         | 1.9               | 4.0                        |
| WSR02    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.9          | 5:11:00 PM | 8.9          | 8.2 | 33.7         | 29.4         | 1.9               | 2.5                        |
| WSR02    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.7          | 5:10:00 PM | 8.9          | 8.2 | 33.5         | 29.4         | 2.0               | 2.5                        |
| WSR02    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.7          | 5:10:00 PM | 9.0          | 8.2 | 33.4         | 29.4         | 2.1               | 2.5                        |
| WSR03    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:57:00 PM | 9.3          | 8.3 | 33.7         | 28.9         | 2.6               | 3.0                        |
| WSR03    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:57:00 PM | 9.2          | 8.2 | 33.6         | 29.0         | 2.6               | 4.0                        |
| WSR03    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.8          | 4:56:00 PM | 9.2          | 8.2 | 33.6         | 29.0         | 2.4               | 5.0                        |
| WSR03    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.8          | 4:56:00 PM | 9.1          | 8.2 | 33.6         | 29.0         | 2.1               | 4.0                        |
| WSR03    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.5          | 4:55:00 PM | 9.0          | 8.3 | 33.8         | 29.0         | 2.2               | 3.0                        |
| WSR03    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.5          | 4:55:00 PM | 9.0          | 8.2 | 33.6         | 29.0         | 2.3               | 3.0                        |
| WSR04    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:44:00 PM | 9.3          | 8.3 | 33.6         | 29.2         | 2.0               | 4.0                        |
| WSR04    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:44:00 PM | 9.4          | 8.3 | 33.7         | 29.1         | 2.3               | 5.0                        |
| WSR04    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.8          | 4:43:00 PM | 9.3          | 8.3 | 33.4         | 29.1         | 2.0               | 4.0                        |
| WSR04    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.8          | 4:43:00 PM | 9.3          | 8.3 | 33.7         | 29.1         | 2.1               | 3.0                        |
| WSR04    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.5          | 4:42:00 PM | 9.3          | 8.3 | 33.5         | 29.1         | 2.0               | 8.0                        |
| WSR04    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.5          | 4:42:00 PM | 9.2          | 8.3 | 33.6         | 29.1         | 2.1               | 4.0                        |
| WSR16    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:39:00 PM | 8.5          | 8.2 | 33.8         | 29.3         | 2.8               | 3.0                        |
| WSR16    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:39:00 PM | 8.6          | 8.2 | 33.7         | 29.3         | 2.4               | 6.0                        |
| WSR16    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 8.0          | 3:38:00 PM | 8.7          | 8.2 | 33.4         | 29.2         | 2.0               | 5.0                        |
| WSR16    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 8.0          | 3:38:00 PM | 8.6          | 8.3 | 33.8         | 29.3         | 2.1               | 3.0                        |
| WSR16    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 15.0         | 3:37:00 PM | 8.6          | 8.3 | 33.7         | 29.3         | 2.1               | 3.0                        |
| WSR16    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 15.0         | 3:37:00 PM | 8.6          | 8.2 | 33.6         | 29.3         | 2.0               | 4.0                        |
| WSR33    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:30:00 PM | 9.3          | 8.3 | 33.8         | 29.4         | 2.7               | 5.0                        |
| WSR33    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:30:00 PM | 9.2          | 8.2 | 33.8         | 29.5         | 2.3               | 3.0                        |
| WSR33    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.6          | 4:29:00 PM | 9.2          | 8.2 | 33.7         | 29.4         | 2.4               | 4.0                        |
| WSR33    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.6          | 4:29:00 PM | 9.4          | 8.2 | 33.7         | 29.4         | 2.0               | 4.0                        |
| WSR33    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.2          | 4:28:00 PM | 9.3          | 8.3 | 33.6         | 29.5         | 2.6               | 2.5                        |
| WSR33    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.2          | 4:28:00 PM | 9.2          | 8.3 | 33.7         | 29.4         | 2.6               | 3.0                        |
| WSR36    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:16:00 PM | 9.2          | 8.3 | 33.4         | 29.2         | 2.7               | 3.0                        |
| WSR36    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:16:00 PM | 9.2          | 8.4 | 33.2         | 29.3         | 2.4               | 2.5                        |
| WSR36    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.9          | 4:16:00 PM | 9.1          | 8.3 | 33.3         | 29.2         | 2.3               | 3.0                        |
| WSR36    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.9          | 4:16:00 PM | 9.2          | 8.4 | 33.1         | 29.3         | 2.1               | 5.0                        |
| WSR36    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.7          | 4:15:00 PM | 9.3          | 8.4 | 33.4         | 29.2         | 2.2               | 5.0                        |
| WSR36    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.7          | 4:15:00 PM | 9.1          | 8.3 | 33.3         | 29.3         | 2.2               | 8.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR37    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:02:00 PM  | 9.3          | 8.3 | 33.3         | 29.6         | 2.3               | 7.0                        |
| WSR37    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 4:02:00 PM  | 9.4          | 8.3 | 33.3         | 29.5         | 2.2               | 9.0                        |
| WSR37    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.3          | 4:01:00 PM  | 9.2          | 8.3 | 33.3         | 29.5         | 2.2               | 4.0                        |
| WSR37    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.3          | 4:01:00 PM  | 9.2          | 8.3 | 33.4         | 29.5         | 2.0               | 8.0                        |
| WSR37    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.6          | 4:00:00 PM  | 9.4          | 8.4 | 33.2         | 29.5         | 2.4               | 5.0                        |
| WSR37    | 20220917 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.6          | 4:00:00 PM  | 9.3          | 8.4 | 33.6         | 29.5         | 2.2               | 4.0                        |
| CE       | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:02:00 AM  | 8.9          | 8.3 | 32.3         | 28.4         | 3.1               | 3.0                        |
| CE       | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:02:00 AM  | 9.1          | 8.4 | 32.6         | 28.3         | 2.7               | 2.5                        |
| CE       | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 11.0         | 8:01:00 AM  | 8.9          | 8.3 | 32.4         | 28.4         | 3.1               | 8.0                        |
| CE       | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 11.0         | 8:01:00 AM  | 8.9          | 8.4 | 32.5         | 28.3         | 3.0               | 9.0                        |
| CE       | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 20.9         | 8:00:00 AM  | 9.0          | 8.3 | 32.5         | 28.3         | 3.4               | 7.0                        |
| CE       | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 20.9         | 8:00:00 AM  | 8.9          | 8.3 | 32.5         | 28.3         | 3.3               | 8.0                        |
| CF       | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:34:00 AM | 8.5          | 8.3 | 31.4         | 28.7         | 2.2               | 5.0                        |
| CF       | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:34:00 AM | 8.6          | 8.2 | 31.6         | 28.6         | 2.4               | 8.0                        |
| CF       | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 10.1         | 10:33:00 AM | 8.5          | 8.2 | 31.7         | 28.6         | 2.6               | 5.0                        |
| CF       | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 10.1         | 10:33:00 AM | 8.4          | 8.3 | 31.6         | 28.7         | 2.4               | 7.0                        |
| CF       | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 19.2         | 10:32:00 AM | 8.5          | 8.2 | 31.4         | 28.6         | 2.9               | 6.0                        |
| CF       | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 19.2         | 10:32:00 AM | 8.5          | 8.2 | 31.7         | 28.6         | 2.7               | 5.0                        |
| WSR01    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:11:00 AM | 8.4          | 8.3 | 32.2         | 28.2         | 2.2               | 3.0                        |
| WSR01    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:11:00 AM | 8.4          | 8.3 | 32.6         | 28.3         | 2.2               | 6.0                        |
| WSR01    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.7          | 10:10:00 AM | 8.6          | 8.3 | 32.6         | 28.2         | 2.1               | 8.0                        |
| WSR01    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.7          | 10:10:00 AM | 8.6          | 8.3 | 32.2         | 28.2         | 2.0               | 9.0                        |
| WSR01    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.4          | 10:09:00 AM | 8.6          | 8.4 | 32.5         | 28.3         | 2.0               | 8.0                        |
| WSR01    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.4          | 10:09:00 AM | 8.6          | 8.3 | 32.5         | 28.2         | 1.8               | 10.0                       |
| WSR02    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:52:00 AM  | 9.0          | 8.3 | 31.8         | 28.2         | 2.2               | 10.0                       |
| WSR02    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:52:00 AM  | 9.0          | 8.3 | 31.9         | 28.3         | 2.3               | 8.0                        |
| WSR02    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 5.0          | 9:51:00 AM  | 8.9          | 8.3 | 31.6         | 28.2         | 2.2               | 5.0                        |
| WSR02    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 5.0          | 9:51:00 AM  | 9.0          | 8.3 | 31.6         | 28.2         | 1.9               | 8.0                        |
| WSR02    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.9          | 9:50:00 AM  | 8.8          | 8.3 | 31.6         | 28.2         | 1.6               | 8.0                        |
| WSR02    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.9          | 9:50:00 AM  | 8.9          | 8.3 | 31.8         | 28.3         | 1.8               | 6.0                        |
| WSR03    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:37:00 AM  | 8.3          | 8.3 | 31.8         | 28.2         | 2.0               | 6.0                        |
| WSR03    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:37:00 AM  | 8.5          | 8.2 | 31.8         | 28.3         | 2.1               | 5.0                        |
| WSR03    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.1          | 9:36:00 AM  | 8.3          | 8.2 | 31.9         | 28.3         | 1.7               | 4.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR03    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.1          | 9:36:00 AM | 8.3          | 8.2 | 31.8         | 28.3         | 1.9               | 5.0                        |
| WSR03    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.1          | 9:35:00 AM | 8.4          | 8.3 | 31.9         | 28.3         | 1.7               | 12.0                       |
| WSR03    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.1          | 9:35:00 AM | 8.3          | 8.2 | 32.0         | 28.2         | 1.7               | 11.0                       |
| WSR04    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:26:00 AM | 8.4          | 8.2 | 31.7         | 28.6         | 2.2               | 5.0                        |
| WSR04    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:26:00 AM | 8.4          | 8.2 | 31.9         | 28.7         | 2.3               | 6.0                        |
| WSR04    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.5          | 9:25:00 AM | 8.3          | 8.3 | 31.7         | 28.7         | 1.9               | 8.0                        |
| WSR04    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.5          | 9:25:00 AM | 8.4          | 8.2 | 32.0         | 28.6         | 1.6               | 4.0                        |
| WSR04    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.0          | 9:24:00 AM | 8.3          | 8.2 | 31.8         | 28.7         | 1.6               | 5.0                        |
| WSR04    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.0          | 9:24:00 AM | 8.3          | 8.2 | 32.0         | 28.7         | 1.4               | 6.0                        |
| WSR16    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:24:00 AM | 8.5          | 8.2 | 31.9         | 28.8         | 1.9               | 4.0                        |
| WSR16    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:24:00 AM | 8.5          | 8.2 | 31.9         | 28.7         | 2.1               | 5.0                        |
| WSR16    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 7.9          | 8:23:00 AM | 8.3          | 8.2 | 31.8         | 28.7         | 2.2               | 4.0                        |
| WSR16    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 7.9          | 8:23:00 AM | 8.4          | 8.2 | 31.9         | 28.7         | 2.1               | 4.0                        |
| WSR16    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 14.7         | 8:22:00 AM | 8.4          | 8.2 | 31.8         | 28.7         | 1.9               | 5.0                        |
| WSR16    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 14.7         | 8:22:00 AM | 8.3          | 8.2 | 31.7         | 28.8         | 2.0               | 4.0                        |
| WSR33    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:12:00 AM | 9.0          | 8.3 | 32.3         | 28.1         | 2.3               | 3.0                        |
| WSR33    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:12:00 AM | 8.8          | 8.2 | 32.3         | 28.1         | 2.1               | 6.0                        |
| WSR33    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.5          | 9:11:00 AM | 8.8          | 8.3 | 32.2         | 28.0         | 1.8               | 5.0                        |
| WSR33    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.5          | 9:11:00 AM | 8.7          | 8.3 | 32.3         | 28.1         | 2.1               | 8.0                        |
| WSR33    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.0          | 9:10:00 AM | 8.8          | 8.2 | 32.4         | 28.0         | 1.4               | 7.0                        |
| WSR33    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.0          | 9:10:00 AM | 9.0          | 8.3 | 32.3         | 28.1         | 1.6               | 7.0                        |
| WSR36    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:58:00 AM | 8.5          | 8.2 | 31.5         | 28.8         | 2.0               | 5.0                        |
| WSR36    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:58:00 AM | 8.4          | 8.2 | 31.6         | 28.8         | 1.7               | 5.0                        |
| WSR36    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.5          | 8:58:00 AM | 8.3          | 8.2 | 31.6         | 28.8         | 1.8               | 7.0                        |
| WSR36    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.5          | 8:58:00 AM | 8.3          | 8.2 | 31.7         | 28.7         | 1.8               | 5.0                        |
| WSR36    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.0          | 8:57:00 AM | 8.3          | 8.2 | 31.8         | 28.8         | 2.2               | 7.0                        |
| WSR36    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.0          | 8:57:00 AM | 8.4          | 8.2 | 31.6         | 28.8         | 1.9               | 8.0                        |
| WSR37    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:45:00 AM | 8.5          | 8.3 | 32.2         | 28.2         | 1.7               | 7.0                        |
| WSR37    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:45:00 AM | 8.7          | 8.3 | 32.0         | 28.2         | 1.5               | 4.0                        |
| WSR37    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.4          | 8:44:00 AM | 8.6          | 8.3 | 32.1         | 28.2         | 1.7               | 7.0                        |
| WSR37    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.4          | 8:44:00 AM | 8.5          | 8.2 | 31.9         | 28.2         | 1.4               | 7.0                        |
| WSR37    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.8          | 8:43:00 AM | 8.6          | 8.3 | 32.0         | 28.3         | 1.6               | 4.0                        |
| WSR37    | 20220920 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.8          | 8:43:00 AM | 8.6          | 8.3 | 32.0         | 28.2         | 1.4               | 2.5                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| CE       | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:17:00 AM  | 9.7          | 8.2 | 32.2         | 28.7         | 1.8               | 2.5                        |
| CE       | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:17:00 AM  | 9.7          | 8.2 | 32.3         | 28.7         | 1.9               | 2.5                        |
| CE       | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.8         | 8:16:00 AM  | 9.8          | 8.2 | 32.1         | 28.7         | 2.1               | 4.0                        |
| CE       | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.8         | 8:16:00 AM  | 9.7          | 8.1 | 32.2         | 28.7         | 1.9               | 2.5                        |
| CE       | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 20.6         | 8:15:00 AM  | 9.7          | 8.1 | 32.3         | 28.6         | 2.5               | 5.0                        |
| CE       | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 20.6         | 8:15:00 AM  | 9.8          | 8.2 | 32.2         | 28.6         | 2.2               | 5.0                        |
| CF       | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:43:00 AM | 9.5          | 8.2 | 32.5         | 28.9         | 2.0               | 2.5                        |
| CF       | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:43:00 AM | 9.5          | 8.1 | 32.2         | 28.8         | 2.0               | 4.0                        |
| CF       | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.2         | 10:42:00 AM | 9.6          | 8.2 | 32.4         | 28.8         | 1.7               | 3.0                        |
| CF       | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.2         | 10:42:00 AM | 9.6          | 8.1 | 32.5         | 28.9         | 1.8               | 2.5                        |
| CF       | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 19.4         | 10:41:00 AM | 9.6          | 8.2 | 32.2         | 28.8         | 2.0               | 5.0                        |
| CF       | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 19.4         | 10:41:00 AM | 9.5          | 8.2 | 32.3         | 28.8         | 2.1               | 4.0                        |
| WSR01    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:21:00 AM | 9.0          | 8.3 | 31.3         | 28.7         | 1.3               | 12.0                       |
| WSR01    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:21:00 AM | 8.9          | 8.3 | 31.3         | 28.6         | 1.3               | 10.0                       |
| WSR01    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.4          | 10:20:00 AM | 9.1          | 8.3 | 31.4         | 28.7         | 1.1               | 7.0                        |
| WSR01    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.4          | 10:20:00 AM | 9.0          | 8.3 | 31.4         | 28.7         | 1.3               | 9.0                        |
| WSR01    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.7          | 10:19:00 AM | 9.0          | 8.3 | 31.5         | 28.6         | 1.0               | 5.0                        |
| WSR01    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.7          | 10:19:00 AM | 9.0          | 8.3 | 31.3         | 28.7         | 0.9               | 6.0                        |
| WSR02    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:04:00 AM | 9.1          | 8.3 | 30.9         | 28.4         | 1.7               | 2.5                        |
| WSR02    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:04:00 AM | 9.0          | 8.3 | 31.0         | 28.4         | 1.5               | 2.5                        |
| WSR02    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.6          | 10:03:00 AM | 9.1          | 8.3 | 31.1         | 28.3         | 1.3               | 2.5                        |
| WSR02    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.6          | 10:03:00 AM | 9.1          | 8.3 | 31.1         | 28.4         | 1.6               | 4.0                        |
| WSR02    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.1          | 10:02:00 AM | 9.1          | 8.3 | 31.0         | 28.3         | 1.4               | 7.0                        |
| WSR02    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.1          | 10:02:00 AM | 9.1          | 8.3 | 31.1         | 28.3         | 1.2               | 5.0                        |
| WSR03    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:50:00 AM  | 8.9          | 8.5 | 32.6         | 28.8         | 1.5               | 2.5                        |
| WSR03    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:50:00 AM  | 8.9          | 8.5 | 32.5         | 28.7         | 1.3               | 4.0                        |
| WSR03    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.2          | 9:49:00 AM  | 8.9          | 8.5 | 32.4         | 28.7         | 1.1               | 5.0                        |
| WSR03    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.2          | 9:49:00 AM  | 9.0          | 8.5 | 32.5         | 28.7         | 1.2               | 4.0                        |
| WSR03    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.3          | 9:48:00 AM  | 8.9          | 8.5 | 32.5         | 28.7         | 1.3               | 3.0                        |
| WSR03    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.3          | 9:48:00 AM  | 9.0          | 8.5 | 32.4         | 28.7         | 1.1               | 6.0                        |
| WSR04    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:38:00 AM  | 8.5          | 8.4 | 32.2         | 28.8         | 1.0               | 5.0                        |
| WSR04    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:38:00 AM  | 8.6          | 8.4 | 32.1         | 28.7         | 1.1               | 5.0                        |
| WSR04    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.8          | 9:37:00 AM  | 8.5          | 8.4 | 32.3         | 28.8         | 1.3               | 5.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR04    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.8          | 9:37:00 AM | 8.5          | 8.3 | 32.2         | 28.7         | 1.2               | 5.0                        |
| WSR04    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.5          | 9:36:00 AM | 8.5          | 8.3 | 32.4         | 28.8         | 1.1               | 6.0                        |
| WSR04    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.5          | 9:36:00 AM | 8.6          | 8.3 | 32.4         | 28.8         | 1.2               | 5.0                        |
| WSR16    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:38:00 AM | 8.7          | 8.4 | 32.4         | 28.5         | 1.5               | 2.5                        |
| WSR16    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:38:00 AM | 8.7          | 8.5 | 32.3         | 28.5         | 1.8               | 4.0                        |
| WSR16    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 8.2          | 8:37:00 AM | 8.7          | 8.5 | 32.2         | 28.5         | 1.2               | 7.0                        |
| WSR16    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 8.2          | 8:37:00 AM | 8.7          | 8.4 | 32.4         | 28.4         | 1.3               | 6.0                        |
| WSR16    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 15.4         | 8:36:00 AM | 8.7          | 8.4 | 32.5         | 28.4         | 1.2               | 3.0                        |
| WSR16    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 15.4         | 8:36:00 AM | 8.8          | 8.4 | 32.3         | 28.5         | 1.0               | 5.0                        |
| WSR33    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:25:00 AM | 9.5          | 8.4 | 32.0         | 28.9         | 0.9               | 2.5                        |
| WSR33    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:25:00 AM | 9.5          | 8.4 | 31.9         | 28.7         | 0.9               | 4.0                        |
| WSR33    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.6          | 9:24:00 AM | 9.5          | 8.3 | 32.0         | 28.8         | 1.3               | 4.0                        |
| WSR33    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.6          | 9:24:00 AM | 9.5          | 8.4 | 32.0         | 28.8         | 1.3               | 2.5                        |
| WSR33    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.2          | 9:23:00 AM | 9.5          | 8.4 | 32.0         | 28.8         | 1.2               | 2.5                        |
| WSR33    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.2          | 9:23:00 AM | 9.5          | 8.4 | 32.1         | 28.8         | 1.2               | 4.0                        |
| WSR36    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:12:00 AM | 9.0          | 8.3 | 31.8         | 28.8         | 1.5               | 6.0                        |
| WSR36    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:12:00 AM | 9.1          | 8.3 | 31.6         | 28.7         | 1.6               | 7.0                        |
| WSR36    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.8          | 9:12:00 AM | 9.1          | 8.3 | 31.7         | 28.8         | 1.5               | 8.0                        |
| WSR36    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.8          | 9:12:00 AM | 9.0          | 8.3 | 31.6         | 28.8         | 1.4               | 6.0                        |
| WSR36    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.5          | 9:11:00 AM | 9.1          | 8.3 | 31.7         | 28.8         | 1.3               | 2.5                        |
| WSR36    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.5          | 9:11:00 AM | 9.1          | 8.3 | 31.7         | 28.8         | 1.1               | 4.0                        |
| WSR37    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:59:00 AM | 9.6          | 8.2 | 32.2         | 28.4         | 1.3               | 2.5                        |
| WSR37    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 8:59:00 AM | 9.5          | 8.2 | 32.2         | 28.5         | 1.5               | 2.5                        |
| WSR37    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.1          | 8:58:00 AM | 9.6          | 8.2 | 32.0         | 28.4         | 1.4               | 3.0                        |
| WSR37    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.1          | 8:58:00 AM | 9.5          | 8.2 | 32.1         | 28.5         | 1.6               | 3.0                        |
| WSR37    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.1          | 8:57:00 AM | 9.6          | 8.2 | 32.1         | 28.4         | 0.9               | 4.0                        |
| WSR37    | 20220922 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.1          | 8:57:00 AM | 9.6          | 8.2 | 32.3         | 28.5         | 0.9               | 2.5                        |
| CE       | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:44:00 AM | 8.1          | 8.2 | 32.6         | 28.4         | 2.5               | 2.5                        |
| CE       | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 9:44:00 AM | 8.1          | 8.2 | 32.6         | 28.4         | 2.3               | 2.5                        |
| CE       | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 11.4         | 9:43:00 AM | 8.1          | 8.2 | 32.6         | 28.4         | 2.6               | 5.0                        |
| CE       | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 11.4         | 9:43:00 AM | 8.2          | 8.2 | 32.6         | 28.4         | 2.5               | 3.0                        |
| CE       | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 21.8         | 9:42:00 AM | 8.1          | 8.2 | 32.6         | 28.4         | 2.9               | 2.5                        |
| CE       | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 21.8         | 9:42:00 AM | 8.3          | 8.2 | 32.5         | 28.4         | 2.7               | 2.5                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| CF       | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:16:00 PM | 8.5          | 8.1 | 33.5         | 28.0         | 2.3               | 3.0                        |
| CF       | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:16:00 PM | 8.6          | 8.1 | 33.5         | 28.0         | 2.3               | 2.5                        |
| CF       | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.2         | 12:15:00 PM | 8.5          | 8.1 | 33.3         | 28.0         | 2.2               | 3.0                        |
| CF       | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 10.2         | 12:15:00 PM | 8.4          | 8.1 | 33.4         | 28.0         | 2.1               | 3.0                        |
| CF       | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 19.4         | 12:14:00 PM | 8.5          | 8.1 | 33.3         | 28.0         | 2.3               | 2.5                        |
| CF       | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 19.4         | 12:14:00 PM | 8.5          | 8.1 | 33.4         | 28.1         | 2.3               | 3.0                        |
| WSR01    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:54:00 AM | 8.6          | 8.1 | 33.3         | 28.7         | 2.3               | 3.0                        |
| WSR01    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:54:00 AM | 8.5          | 8.1 | 33.1         | 28.7         | 2.1               | 2.5                        |
| WSR01    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.8          | 11:53:00 AM | 8.4          | 8.1 | 33.1         | 28.6         | 2.1               | 4.0                        |
| WSR01    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.8          | 11:53:00 AM | 8.3          | 8.1 | 33.2         | 28.7         | 2.0               | 2.5                        |
| WSR01    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.5          | 11:52:00 AM | 8.5          | 8.1 | 33.1         | 28.7         | 2.1               | 2.5                        |
| WSR01    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.5          | 11:52:00 AM | 8.5          | 8.1 | 33.1         | 28.6         | 1.8               | 3.0                        |
| WSR02    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:37:00 AM | 8.1          | 8.1 | 33.3         | 28.6         | 1.9               | 2.5                        |
| WSR02    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:37:00 AM | 8.1          | 8.1 | 33.3         | 28.6         | 1.9               | 2.5                        |
| WSR02    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.7          | 11:36:00 AM | 8.0          | 8.1 | 33.4         | 28.5         | 2.2               | 2.5                        |
| WSR02    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.7          | 11:36:00 AM | 8.0          | 8.1 | 33.4         | 28.6         | 2.3               | 4.0                        |
| WSR02    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.3          | 11:35:00 AM | 8.0          | 8.1 | 33.3         | 28.5         | 2.2               | 2.5                        |
| WSR02    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 8.3          | 11:35:00 AM | 7.9          | 8.1 | 33.4         | 28.6         | 1.9               | 3.0                        |
| WSR03    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:22:00 AM | 8.5          | 8.2 | 33.4         | 28.8         | 2.3               | 4.0                        |
| WSR03    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:22:00 AM | 8.6          | 8.2 | 33.4         | 28.7         | 2.0               | 3.0                        |
| WSR03    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.2          | 11:21:00 AM | 8.4          | 8.2 | 33.4         | 28.7         | 2.3               | 2.5                        |
| WSR03    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.2          | 11:21:00 AM | 8.5          | 8.2 | 33.3         | 28.7         | 2.2               | 4.0                        |
| WSR03    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.4          | 11:20:00 AM | 8.6          | 8.2 | 33.4         | 28.8         | 1.5               | 2.5                        |
| WSR03    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.4          | 11:20:00 AM | 8.3          | 8.2 | 33.3         | 28.7         | 1.7               | 3.0                        |
| WSR04    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:10:00 AM | 8.1          | 8.2 | 32.8         | 28.2         | 1.8               | 2.5                        |
| WSR04    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:10:00 AM | 8.1          | 8.2 | 32.7         | 28.1         | 2.0               | 3.0                        |
| WSR04    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.9          | 11:09:00 AM | 8.1          | 8.2 | 32.8         | 28.1         | 1.8               | 2.5                        |
| WSR04    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.9          | 11:09:00 AM | 8.3          | 8.2 | 32.8         | 28.1         | 2.0               | 3.0                        |
| WSR04    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.7          | 11:08:00 AM | 8.3          | 8.2 | 32.9         | 28.1         | 1.9               | 2.5                        |
| WSR04    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.7          | 11:08:00 AM | 8.2          | 8.2 | 32.7         | 28.2         | 1.9               | 3.0                        |
| WSR16    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:07:00 AM | 8.6          | 8.2 | 33.5         | 28.8         | 2.2               | 3.0                        |
| WSR16    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:07:00 AM | 8.5          | 8.1 | 33.6         | 28.7         | 2.0               | 3.0                        |
| WSR16    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 7.8          | 10:06:00 AM | 8.5          | 8.1 | 33.4         | 28.7         | 2.0               | 3.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR16    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 7.8          | 10:06:00 AM | 8.4          | 8.1 | 33.5         | 28.8         | 2.3               | 3.0                        |
| WSR16    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 14.6         | 10:05:00 AM | 8.3          | 8.2 | 33.4         | 28.8         | 1.5               | 3.0                        |
| WSR16    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 14.6         | 10:05:00 AM | 8.5          | 8.1 | 33.5         | 28.7         | 1.7               | 2.5                        |
| WSR33    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:56:00 AM | 8.2          | 8.2 | 33.3         | 28.4         | 2.1               | 2.5                        |
| WSR33    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:56:00 AM | 8.2          | 8.2 | 33.2         | 28.4         | 2.3               | 2.5                        |
| WSR33    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.5          | 10:55:00 AM | 8.1          | 8.2 | 33.2         | 28.3         | 1.9               | 3.0                        |
| WSR33    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.5          | 10:55:00 AM | 8.1          | 8.2 | 33.2         | 28.4         | 2.1               | 2.5                        |
| WSR33    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.0          | 10:54:00 AM | 8.2          | 8.2 | 33.3         | 28.4         | 2.2               | 3.0                        |
| WSR33    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.0          | 10:54:00 AM | 8.1          | 8.2 | 33.2         | 28.4         | 1.9               | 2.5                        |
| WSR36    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:42:00 AM | 8.5          | 8.2 | 32.6         | 28.7         | 2.3               | 6.0                        |
| WSR36    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:42:00 AM | 8.5          | 8.2 | 32.6         | 28.7         | 1.9               | 4.0                        |
| WSR36    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.7          | 10:42:00 AM | 8.6          | 8.1 | 32.7         | 28.7         | 2.0               | 2.5                        |
| WSR36    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 3.7          | 10:42:00 AM | 8.4          | 8.1 | 32.8         | 28.7         | 2.3               | 4.0                        |
| WSR36    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.3          | 10:41:00 AM | 8.6          | 8.2 | 32.7         | 28.7         | 2.3               | 2.5                        |
| WSR36    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 6.3          | 10:41:00 AM | 8.6          | 8.2 | 32.6         | 28.7         | 2.2               | 2.5                        |
| WSR37    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:29:00 AM | 8.2          | 8.2 | 32.7         | 28.3         | 2.0               | 2.5                        |
| WSR37    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Surface        | 1.0          | 10:29:00 AM | 8.2          | 8.2 | 32.7         | 28.4         | 1.9               | 2.5                        |
| WSR37    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.2          | 10:28:00 AM | 8.2          | 8.2 | 32.7         | 28.4         | 1.9               | 4.0                        |
| WSR37    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Middle         | 4.2          | 10:28:00 AM | 8.2          | 8.2 | 32.6         | 28.3         | 2.0               | 6.0                        |
| WSR37    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.3          | 10:27:00 AM | 8.2          | 8.2 | 32.6         | 28.4         | 2.3               | 4.0                        |
| WSR37    | 20220924 | Sunny   | Moderate         | Mid-Ebb | Bottom         | 7.3          | 10:27:00 AM | 8.2          | 8.2 | 32.8         | 28.4         | 2.3               | 4.0                        |
| CE       | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:29:00 AM | 8.7          | 8.3 | 33.2         | 27.8         | 2.4               | 2.5                        |
| CE       | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:29:00 AM | 8.6          | 8.3 | 33.2         | 27.9         | 2.4               | 2.5                        |
| CE       | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 11.6         | 11:28:00 AM | 8.7          | 8.3 | 33.3         | 27.8         | 2.6               | 2.5                        |
| CE       | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 11.6         | 11:28:00 AM | 8.6          | 8.3 | 33.1         | 27.9         | 2.6               | 2.5                        |
| CE       | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 22.1         | 11:27:00 AM | 8.7          | 8.3 | 33.3         | 27.8         | 2.6               | 2.5                        |
| CE       | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 22.1         | 11:27:00 AM | 8.6          | 8.3 | 33.2         | 27.8         | 2.6               | 2.5                        |
| CF       | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:05:00 PM  | 8.5          | 8.3 | 33.9         | 27.8         | 2.4               | 2.5                        |
| CF       | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:05:00 PM  | 8.5          | 8.3 | 33.9         | 27.7         | 2.5               | 2.5                        |
| CF       | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 9.7          | 2:04:00 PM  | 8.7          | 8.3 | 33.7         | 27.7         | 2.4               | 3.0                        |
| CF       | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 9.7          | 2:04:00 PM  | 8.6          | 8.3 | 33.8         | 27.9         | 2.4               | 2.5                        |
| CF       | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 18.4         | 2:03:00 PM  | 8.5          | 8.3 | 33.8         | 27.8         | 2.4               | 2.5                        |
| CF       | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 18.4         | 2:03:00 PM  | 8.5          | 8.3 | 33.8         | 27.8         | 2.3               | 3.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR01    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:42:00 PM  | 9.0          | 8.2 | 33.3         | 28.2         | 2.1               | 4.0                        |
| WSR01    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:42:00 PM  | 9.1          | 8.3 | 33.2         | 28.2         | 2.3               | 2.5                        |
| WSR01    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.5          | 1:41:00 PM  | 9.0          | 8.3 | 33.3         | 28.2         | 1.8               | 2.5                        |
| WSR01    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.5          | 1:41:00 PM  | 9.1          | 8.2 | 33.2         | 28.2         | 1.7               | 2.5                        |
| WSR01    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.9          | 1:40:00 PM  | 9.0          | 8.2 | 33.2         | 28.1         | 1.7               | 2.5                        |
| WSR01    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.9          | 1:40:00 PM  | 9.0          | 8.2 | 33.2         | 28.3         | 1.5               | 2.5                        |
| WSR02    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:23:00 PM  | 8.1          | 8.3 | 33.7         | 28.0         | 2.3               | 4.0                        |
| WSR02    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:23:00 PM  | 8.1          | 8.2 | 33.7         | 28.0         | 2.4               | 2.5                        |
| WSR02    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.6          | 1:22:00 PM  | 8.2          | 8.3 | 33.8         | 28.1         | 2.3               | 3.0                        |
| WSR02    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.6          | 1:22:00 PM  | 8.1          | 8.2 | 33.7         | 28.0         | 2.4               | 2.5                        |
| WSR02    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.1          | 1:21:00 PM  | 8.1          | 8.3 | 33.8         | 28.0         | 2.3               | 3.0                        |
| WSR02    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.1          | 1:21:00 PM  | 8.1          | 8.3 | 33.7         | 27.9         | 2.4               | 2.5                        |
| WSR03    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:08:00 PM  | 8.3          | 8.3 | 33.5         | 28.3         | 2.4               | 2.5                        |
| WSR03    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:08:00 PM  | 8.3          | 8.2 | 33.5         | 28.2         | 2.2               | 3.0                        |
| WSR03    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.1          | 1:07:00 PM  | 8.3          | 8.3 | 33.6         | 28.3         | 2.3               | 2.5                        |
| WSR03    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.1          | 1:07:00 PM  | 8.3          | 8.3 | 33.6         | 28.2         | 2.4               | 2.5                        |
| WSR03    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.2          | 1:06:00 PM  | 8.4          | 8.2 | 33.5         | 28.2         | 2.3               | 4.0                        |
| WSR03    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.2          | 1:06:00 PM  | 8.3          | 8.2 | 33.5         | 28.3         | 2.2               | 2.5                        |
| WSR04    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:56:00 PM | 9.1          | 8.2 | 33.7         | 27.5         | 2.4               | 2.5                        |
| WSR04    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:56:00 PM | 9.0          | 8.2 | 33.8         | 27.6         | 2.3               | 2.5                        |
| WSR04    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.7          | 12:55:00 PM | 8.9          | 8.2 | 33.8         | 27.6         | 2.3               | 2.5                        |
| WSR04    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.7          | 12:55:00 PM | 9.0          | 8.2 | 33.7         | 27.6         | 2.2               | 4.0                        |
| WSR04    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.3          | 12:54:00 PM | 9.0          | 8.2 | 33.8         | 27.5         | 2.2               | 2.5                        |
| WSR04    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.3          | 12:54:00 PM | 8.9          | 8.2 | 33.8         | 27.4         | 2.4               | 2.5                        |
| WSR16    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:52:00 AM | 9.0          | 8.2 | 33.7         | 27.8         | 2.1               | 2.5                        |
| WSR16    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 11:52:00 AM | 9.0          | 8.2 | 33.6         | 27.9         | 2.0               | 3.0                        |
| WSR16    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 8.0          | 11:51:00 AM | 8.9          | 8.2 | 33.5         | 27.9         | 2.3               | 2.5                        |
| WSR16    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 8.0          | 11:51:00 AM | 9.0          | 8.2 | 33.5         | 27.8         | 2.2               | 2.5                        |
| WSR16    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 14.9         | 11:50:00 AM | 9.0          | 8.2 | 33.6         | 27.8         | 1.9               | 2.5                        |
| WSR16    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 14.9         | 11:50:00 AM | 8.9          | 8.2 | 33.6         | 27.8         | 1.9               | 2.5                        |
| WSR33    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:42:00 PM | 8.4          | 8.3 | 33.2         | 28.1         | 2.3               | 2.5                        |
| WSR33    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:42:00 PM | 8.5          | 8.2 | 33.3         | 28.2         | 2.7               | 2.5                        |
| WSR33    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.9          | 12:41:00 PM | 8.4          | 8.3 | 33.3         | 28.0         | 2.4               | 9.0                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time        | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|-------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR33    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.9          | 12:41:00 PM | 8.4          | 8.3 | 33.2         | 28.1         | 2.2               | 10.0                       |
| WSR33    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.7          | 12:40:00 PM | 8.5          | 8.3 | 33.2         | 28.1         | 1.9               | 2.5                        |
| WSR33    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.7          | 12:40:00 PM | 8.4          | 8.3 | 33.1         | 28.1         | 1.8               | 3.0                        |
| WSR36    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:28:00 PM | 9.2          | 8.3 | 32.8         | 27.7         | 2.0               | 2.5                        |
| WSR36    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:28:00 PM | 9.1          | 8.2 | 32.8         | 27.7         | 2.2               | 2.5                        |
| WSR36    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.4          | 12:28:00 PM | 9.1          | 8.3 | 32.9         | 27.7         | 1.7               | 2.5                        |
| WSR36    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.4          | 12:28:00 PM | 9.0          | 8.2 | 33.0         | 27.7         | 1.7               | 2.5                        |
| WSR36    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 5.7          | 12:27:00 PM | 9.2          | 8.2 | 32.8         | 27.8         | 1.6               | 4.0                        |
| WSR36    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 5.7          | 12:27:00 PM | 9.1          | 8.2 | 32.9         | 27.7         | 1.4               | 5.0                        |
| WSR37    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:14:00 PM | 9.0          | 8.3 | 33.3         | 27.9         | 2.4               | 2.5                        |
| WSR37    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:14:00 PM | 9.0          | 8.3 | 33.5         | 27.8         | 2.3               | 2.5                        |
| WSR37    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.3          | 12:13:00 PM | 9.0          | 8.2 | 33.4         | 27.7         | 2.0               | 3.0                        |
| WSR37    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.3          | 12:13:00 PM | 9.1          | 8.3 | 33.4         | 27.8         | 2.2               | 3.0                        |
| WSR37    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.6          | 12:12:00 PM | 9.0          | 8.2 | 33.3         | 27.9         | 2.2               | 3.0                        |
| WSR37    | 20220927 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.6          | 12:12:00 PM | 9.0          | 8.3 | 33.4         | 27.7         | 2.3               | 3.0                        |
| CE       | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:47:00 PM | 8.7          | 8.2 | 32.7         | 28.3         | 2.5               | 2.5                        |
| CE       | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 12:47:00 PM | 8.8          | 8.3 | 32.9         | 28.3         | 2.6               | 2.5                        |
| CE       | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 11.7         | 12:46:00 PM | 8.7          | 8.3 | 32.7         | 28.3         | 2.8               | 2.5                        |
| CE       | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 11.7         | 12:46:00 PM | 8.8          | 8.2 | 32.9         | 28.3         | 2.6               | 2.5                        |
| CE       | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 22.4         | 12:45:00 PM | 8.7          | 8.3 | 32.8         | 28.3         | 2.9               | 2.5                        |
| CE       | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 22.4         | 12:45:00 PM | 8.8          | 8.3 | 32.8         | 28.2         | 2.7               | 2.5                        |
| CF       | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:22:00 PM  | 8.7          | 8.3 | 32.9         | 28.1         | 2.3               | 2.5                        |
| CF       | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:22:00 PM  | 8.8          | 8.3 | 33.0         | 27.9         | 2.2               | 2.5                        |
| CF       | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 9.9          | 3:21:00 PM  | 8.8          | 8.3 | 32.9         | 28.0         | 2.4               | 2.5                        |
| CF       | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 9.9          | 3:21:00 PM  | 8.8          | 8.4 | 32.9         | 28.0         | 2.4               | 2.5                        |
| CF       | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 18.7         | 3:20:00 PM  | 8.8          | 8.3 | 33.0         | 28.0         | 2.5               | 2.5                        |
| CF       | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 18.7         | 3:20:00 PM  | 8.7          | 8.3 | 33.0         | 27.9         | 2.6               | 2.5                        |
| WSR01    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:00:00 PM  | 8.4          | 8.3 | 33.3         | 28.0         | 1.7               | 3.0                        |
| WSR01    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 3:00:00 PM  | 8.4          | 8.4 | 33.4         | 28.0         | 1.9               | 2.5                        |
| WSR01    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.8          | 2:59:00 PM  | 8.4          | 8.4 | 33.3         | 28.0         | 2.2               | 2.5                        |
| WSR01    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.8          | 2:59:00 PM  | 8.4          | 8.3 | 33.4         | 28.0         | 2.0               | 2.5                        |
| WSR01    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.5          | 2:58:00 PM  | 8.4          | 8.4 | 33.3         | 28.1         | 2.1               | 2.5                        |
| WSR01    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.5          | 2:58:00 PM  | 8.4          | 8.4 | 33.3         | 28.0         | 2.2               | 2.5                        |
| WSR02    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:42:00 PM  | 8.6          | 8.2 | 32.8         | 27.8         | 2.3               | 2.5                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR02    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:42:00 PM | 8.6          | 8.2 | 32.7         | 27.9         | 2.1               | 2.5                        |
| WSR02    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 5.0          | 2:41:00 PM | 8.5          | 8.2 | 32.7         | 27.9         | 2.3               | 2.5                        |
| WSR02    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 5.0          | 2:41:00 PM | 8.6          | 8.2 | 32.8         | 27.9         | 2.3               | 2.5                        |
| WSR02    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.9          | 2:40:00 PM | 8.5          | 8.2 | 32.8         | 27.9         | 2.1               | 2.5                        |
| WSR02    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 8.9          | 2:40:00 PM | 8.5          | 8.2 | 32.7         | 27.8         | 2.2               | 2.5                        |
| WSR03    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:27:00 PM | 8.8          | 8.3 | 32.4         | 28.0         | 2.4               | 2.5                        |
| WSR03    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:27:00 PM | 8.7          | 8.4 | 32.4         | 28.0         | 2.4               | 2.5                        |
| WSR03    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.8          | 2:26:00 PM | 8.7          | 8.4 | 32.5         | 28.0         | 2.6               | 2.5                        |
| WSR03    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.8          | 2:26:00 PM | 8.7          | 8.4 | 32.6         | 28.0         | 2.3               | 2.5                        |
| WSR03    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.6          | 2:25:00 PM | 8.7          | 8.4 | 32.6         | 27.9         | 2.1               | 2.5                        |
| WSR03    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.6          | 2:25:00 PM | 8.8          | 8.4 | 32.4         | 28.0         | 2.4               | 3.0                        |
| WSR04    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:14:00 PM | 8.7          | 8.3 | 32.4         | 27.8         | 2.4               | 2.5                        |
| WSR04    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 2:14:00 PM | 8.6          | 8.3 | 32.5         | 27.8         | 2.3               | 3.0                        |
| WSR04    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.8          | 2:13:00 PM | 8.6          | 8.3 | 32.6         | 27.8         | 2.3               | 2.5                        |
| WSR04    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.8          | 2:13:00 PM | 8.7          | 8.4 | 32.4         | 27.9         | 2.2               | 2.5                        |
| WSR04    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.5          | 2:12:00 PM | 8.5          | 8.4 | 32.6         | 27.8         | 1.8               | 2.5                        |
| WSR04    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.5          | 2:12:00 PM | 8.7          | 8.4 | 32.6         | 27.9         | 1.9               | 2.5                        |
| WSR16    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:10:00 PM | 8.5          | 8.2 | 33.0         | 28.0         | 2.3               | 2.5                        |
| WSR16    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:10:00 PM | 8.5          | 8.2 | 33.0         | 28.1         | 2.3               | 2.5                        |
| WSR16    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 8.2          | 1:09:00 PM | 8.6          | 8.2 | 32.9         | 28.0         | 2.4               | 3.0                        |
| WSR16    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 8.2          | 1:09:00 PM | 8.6          | 8.2 | 33.0         | 28.1         | 2.2               | 2.5                        |
| WSR16    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 15.4         | 1:08:00 PM | 8.5          | 8.2 | 33.1         | 28.2         | 2.3               | 5.0                        |
| WSR16    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 15.4         | 1:08:00 PM | 8.5          | 8.2 | 33.1         | 28.0         | 2.0               | 8.0                        |
| WSR33    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:59:00 PM | 8.2          | 8.3 | 33.3         | 27.8         | 2.1               | 2.5                        |
| WSR33    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:59:00 PM | 8.3          | 8.3 | 33.5         | 27.9         | 2.4               | 2.5                        |
| WSR33    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.9          | 1:58:00 PM | 8.3          | 8.3 | 33.4         | 27.9         | 2.0               | 2.5                        |
| WSR33    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.9          | 1:58:00 PM | 8.2          | 8.3 | 33.3         | 27.8         | 1.9               | 2.5                        |
| WSR33    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.7          | 1:57:00 PM | 8.2          | 8.3 | 33.4         | 27.8         | 1.9               | 2.5                        |
| WSR33    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 6.7          | 1:57:00 PM | 8.3          | 8.3 | 33.4         | 27.8         | 2.0               | 2.5                        |
| WSR36    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:45:00 PM | 8.9          | 8.4 | 33.3         | 28.2         | 2.1               | 2.5                        |
| WSR36    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:45:00 PM | 8.8          | 8.3 | 33.4         | 28.2         | 1.9               | 2.5                        |
| WSR36    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.3          | 1:45:00 PM | 8.8          | 8.3 | 33.3         | 28.1         | 2.5               | 2.5                        |
| WSR36    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 3.3          | 1:45:00 PM | 8.7          | 8.3 | 33.4         | 28.2         | 2.2               | 2.5                        |
| WSR36    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 5.6          | 1:44:00 PM | 8.7          | 8.4 | 33.5         | 28.2         | 1.9               | 2.5                        |

| Location | Date     | Weather | Sea<br>Condition | Tidal   | Water<br>Level | Depth<br>(m) | Time       | DO<br>(mg/L) | рН  | Sal<br>(ppt) | Temp<br>(oC) | Turbidty<br>(NTU) | Suspended Solids<br>(mg/L) |
|----------|----------|---------|------------------|---------|----------------|--------------|------------|--------------|-----|--------------|--------------|-------------------|----------------------------|
| WSR36    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 5.6          | 1:44:00 PM | 8.9          | 8.4 | 33.4         | 28.2         | 2.2               | 2.5                        |
| WSR37    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:32:00 PM | 8.7          | 8.4 | 32.9         | 28.3         | 2.2               | 2.5                        |
| WSR37    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Surface        | 1.0          | 1:32:00 PM | 8.8          | 8.4 | 33.0         | 28.4         | 2.5               | 2.5                        |
| WSR37    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.3          | 1:31:00 PM | 8.8          | 8.3 | 32.9         | 28.2         | 2.2               | 2.5                        |
| WSR37    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Middle         | 4.3          | 1:31:00 PM | 8.8          | 8.4 | 32.9         | 28.2         | 2.1               | 2.5                        |
| WSR37    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.5          | 1:30:00 PM | 8.7          | 8.4 | 32.9         | 28.3         | 2.2               | 2.5                        |
| WSR37    | 20220929 | Cloudy  | Moderate         | Mid-Ebb | Bottom         | 7.5          | 1:30:00 PM | 8.8          | 8.4 | 32.9         | 28.3         | 2.0               | 2.5                        |

Contract Title Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant Contract No. : 13/WSD/17

| Serial No. | Monitoring Equipment | Last Calibration |
|------------|----------------------|------------------|
| 254938     | GMI-PS500            | 2/9/2022         |
|            |                      |                  |
|            |                      |                  |
|            |                      |                  |

| Monitoring        | Date               | Time    | Weather Condition                                    |                | Landfill Gas             | Parameters            |                               | Physical Parameters       |                  | Meas  | ured by   |
|-------------------|--------------------|---------|--|----------------|--------------------------|-----------------------|-------------------------------|---------------------------|------------------|-------|-----------|
| Location          | (dd/mm/yyyy)       | (hh:mm) | Sunny/ Fine/ Overcast/<br>Drizzle/ Rain/ Storm/ Hazy | Methane (%LEL) | Oxygen (%)               | Carbon Dioxide<br>(%) | Balance Gas (%)<br>(e.g. H2S) | Temp (°C) / Pressure mBar | Trench Depth (m) | Name  | Signature |
| Ch1+513 - Ch1+625 | 5 /9/2022          | 8:30    | Fin  | 0              | 20.9                     | 0.04                  | 0                             | 33. ( 100444              | 2                | Peter | Non       |
| Ch1+513 - Ch1+625 | 5 / 9/ 2022        | 13:30   | Fihe   | U              | 20.5                     | v.u4                  | ð                             | 33.4 1/104.4              | 2                | Peter | liten     |
| Ch1+513 - Ch1+625 | 6 / 9/ 2022        | 8:30    | Sunny  | Ø              | 251.9                    | 004                   | Ø                             | 31,2 / 1008,2             | 2                | Peter | hon       |
| Ch1+513 - Ch1+625 | G / 9/ 2022        | 13:30   | Sunny  | U              | 7~ 9                     | 0.04                  | U                             | 33.5 / 106m               | 2                | Peter | hon       |
| Ch1+513 - Ch1+625 | J / 9/ 2022        | 8:30    | Sunny  | b              | 20.9                     | 0,04                  | Ø                             | 30.1 /10132               | 2                | Peter | pp        |
| Ch1+513 - Ch1+625 | <b>)</b> / 9/ 2022 | 13:30   | Sunny  | D              | 20.9                     | 0.04                  | U                             | 32.1 / 1013.3             | 2                | Peter | liph      |
| Ch1+513 - Ch1+625 | 8 / 9/ 2022        | 8:30    | F. fru   | Ø              | 20.9                     | 0,04                  | U                             | 28,9 / /214,2             | 2                | Peter | phi       |
| Ch1+513 - Ch1+625 | G / 9/ 2022        | 13:30   | Fine   | Э              | 20.9                     | v.oy                  | J                             | 31.5 /10142               | 2                | Peter | Juhr      |
| Ch1+513 - Ch1+625 | 9 / 9/ 2022        | 8:30    | F.In   | U              | $\mathcal{W}\mathcal{A}$ | ប៉ុចម                 | 0                             | 2.9.7 /1013.)             | 2                | Peter | Mor       |
| Ch1+513 - Ch1+625 | J / 9/ 2022        | 13:30   | File   | 0              | 20.9                     | 0,04                  | Ø                             | 31.1 / 1013.1             | 2                | Peter | hh        |
| Ch1+513 - Ch1+625 | 1 9/ 2022          | 8:30    | Swerry   | 9              | $\mathcal{M}$            | 10 04                 | 0                             | 28,9 / 1011,4             | 2                | Peter | Julon     |
| Ch1+513 - Ch1+625 | l= / 9/ 2022       | 13:30   | Sublig   | ٥              | 20.5                     | 0,04                  | o                             | 30.8 1/0114               | 2                | Peter | hon       |
| Ch1+513 - Ch1+625 | / 9/ 2022          | 8:30    |  |                |                          |                       |                               | /                         | 2                | Peter |           |
| Ch1+513 - Ch1+625 | / 9/ 2022          | 13:30   |  |                |                          |                       |                               | /                         | 2                | Peter |           |
|                   |                    |         |  |                |                          |                       |                               |                           |                  |       |           |
|                   |                    |         |  |                |                          |                       |                               |                           |                  |       |           |

Checked by: GWSI HIFYM Date 3/10/22

Contract Title Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant Contract No. : 13/WSD/17

| Serial No. | Monitoring Equipment | Last Calibration |
|------------|----------------------|------------------|
| 254938     | GMI-PS500            | 2/9/2022         |
|            |                      |                  |
|            |                      |                  |

| Monitoring        | Date         | Time    | Weather Condition                                    |                | Landfill Gas | Parameters            |                               | Physical Parameters       |                  | Meas  | ured by   |
|-------------------|--------------|---------|--|----------------|--------------|-----------------------|-------------------------------|---------------------------|------------------|-------|-----------|
| Location          | (dd/mm/yyyy) | (hh:mm) | Sunny/ Fine/ Overcast/<br>Drizzle/ Rain/ Storm/ Hazy | Methane (%LEL) | Oxygen (%)   | Carbon Dioxide<br>(%) | Balance Gas (%)<br>(e.g. H2S) | Temp (°C) / Pressure mBar | Trench Depth (m) | Name  | Signature |
| Ch1+513 - Ch1+625 | 12 / 9/ 2022 | 8:30    | Five   | U              | 209          | 0.04                  | U                             | 30. ( 1/007. 4            | 2                | Peter | MER       |
| Ch1+513 - Ch1+625 | 12 / 9/ 2022 | 13:30   | File   | U              | 249          | 0.04                  | 0                             | 32 11 / 1007.4            | 2                | Peter | futon     |
| Ch1+513 - Ch1+625 | (} /9/2022   | 8:30    | Showing  | J              | 2029         | 0,04                  | D                             | 30,2 / 10073              | 2                | Peter | ANER.     |
| Ch1+513 - Ch1+625 | }   /9/2022  | 13:30   | Summy  | 0              | 20.1         | 0.04                  | U                             | 322 / 1007,7              | 2                | Peter | Mart      |
| Ch1+513 - Ch1+625 | 14 / 9/ 2022 | 8:30    | Fine   | 6              | 20,9         | ٥٠٥٦                  | б                             | 32.8 / 1007               | 2                | Peter | pthen     |
| Ch1+513 - Ch1+625 | (4 / 9/ 2022 | 13:30   | Fine   | Э              | 202          | 0.04                  | 6)                            | 34,11/007                 | 2                | Peter | hor       |
| Ch1+513 - Ch1+625 | [7           | 8:30    | File   | 0              | 20.5         | Uuq                   | Ø                             | 32-1 / 1005,9             | 2                | Peter | Mon       |
| Ch1+513 - Ch1+625 | 15 / 9/ 2022 | 13:30   | Fire   | U              | Zup          | U, ve                 | ð                             | 24.1 /10050               | 2                | Peter | Won       |
| Ch1+513 - Ch1+625 | /6 / 9/ 2022 | 8:30    | Fine   | 0              | 700          | 0.04                  | 0                             | 30,5 / 1005,1             | 2                | Peter | Mon       |
| Ch1+513 - Ch1+625 | 16 / 9/ 2022 | 13:30   | Fire   | 0              | )~ . {<br>1  | 0.04                  | 6                             | 322 //00511               | 2                | Peter | phan      |
| Ch1+513 - Ch1+625 | () / 9/ 2022 | 8:30    | Sirring  | 0              | 20.9         | N. UCP                | 0                             | 322 / 1006                | 2                | Peter | Juli h    |
| Ch1+513 - Ch1+625 | 1 / 9/ 2022  | 13:30   | Surny  | ð              | 209          | 0.04                  | σ                             | 327 /1006                 | 2                | Peter | Juhn      |
| Ch1+513 - Ch1+625 | / 9/ 2022    | 8:30    | Sharry   |                |              |                       |                               | /                         | 2                | Peter |           |
| Ch1+513 - Ch1+625 | / 9/ 2022    | 13:30   | Starting .   |                |              |                       |                               | /                         | 2                | Peter |           |
|                   |              |         | ,  |                |              |                       |                               |                           |                  |       |           |
|                   |              |         |  |                |              |                       |                               |                           |                  |       |           |

Contract Title Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant Contract No. : 13/WSD/17

| Serial No. | Monitoring Equipment | Last Calibration |
|------------|----------------------|------------------|
| 254938     | GMI-PS500            | 2/9/2022         |
|            |                      |                  |
|            |                      |                  |

| Monitoring        | Date                  | Time    | Weather Condition                                    |                | Landfill Gas | Parameters            |                               | Physical Parameters       |                  | Measu | ured by   |
|-------------------|-----------------------|---------|--|----------------|--------------|-----------------------|-------------------------------|---------------------------|------------------|-------|-----------|
| Location          | (dd/mm/yyyy)          | (hh:mm) | Sunny/ Fine/ Overcast/<br>Drizzle/ Rain/ Storm/ Hazy | Methane (%LEL) | Oxygen (%)   | Carbon Dioxide<br>(%) | Balance Gas (%)<br>(e.g. H2S) | Temp (°C) / Pressure mBar | Trench Depth (m) | Name  | Signature |
| Ch1+513 - Ch1+625 | ှိ / 9/ 2022          | 8:30    | File   | υ              | 20-9         | 0.04                  | 0                             | 28,8 /1005,7              | 2                | Peter | Mall      |
| Ch1+513 - Ch1+625 | (p / 9/ 2022          | 13:30   | Fire   | D              | W.P          | 0.04                  | O                             | 321 //w5p                 | 2                | Peter | Mon       |
| Ch1+513 - Ch1+625 | W /9/2022             | 8:30    | Fine   | Ø              | 2.2          | v.04                  | 0                             | 29,1 //008,2              | 2                | Peter | Mah       |
| Ch1+513 - Ch1+625 | <b>ふ</b> / 9/ 2022    | 13:30   | File   | 0              | 20.1         | 0,04                  | σ                             | 20.8 / 1008m              | 2                | Peter | WAL       |
| Ch1+513 - Ch1+625 | V / 9/ 2022           | 8:30    | F ile  | Ø              | 2 2          | 0.04                  | 0                             | 28.3 /10/0.7              | 2                | Peter | MAR       |
| Ch1+513 - Ch1+625 | $\lambda$ / 9/ 2022   | 13:30   | File   | D              | 20.9         | 0.04                  | 0                             | 31.3 //010.1              | 2                | Peter | Mak       |
| Ch1+513 - Ch1+625 | 2022 / 9 יר           | 8:30    | Tite   | Ø              | ん.1          | 0,04                  | σ                             | 29.7 //011.1              | 2                | Peter | Att.      |
| Ch1+513 - Ch1+625 | าา / 9/ 2022          | 13:30   | File   | 0              | 20.9         | 1,04                  | σ                             | 31,1 / 611,1              | 2                | Peter | MEL       |
| Ch1+513 - Ch1+625 | 23 / 9/ 2022          | 8:30    | Fire   | 0              | Jv.9         | 0.04                  | D                             | 29,5 / 1010.8             | 2                | Peter | ph/2      |
| Ch1+513 - Ch1+625 | 1} <sup>/9/2022</sup> | 13:30   | File   | 0              | 20.5         | U_04                  | ତ                             | 31,5 / 1010.8             | 2                | Peter | ptc/2     |
| Ch1+513 - Ch1+625 | 24 / 9/ 2022          | 8:30    | Fin  | Ô              | 20.9         | 0,04                  | 0                             | 27,3 /1011.2              | 2                | Peter | AAR       |
| Ch1+513 - Ch1+625 | <b>אר</b> / 9/ 2022   | 13:30   | Flu  | 0              | ן-פר         | 0.04                  | 0                             | 31.5 / (311,2             | 2                | Peter | MAN       |
| Ch1+513 - Ch1+625 | / 9/ 2022             | 8:30    |  |                |              |                       |                               | /                         | 2                | Peter |           |
| Ch1+513 - Ch1+625 | / 9/ 2022             | 13:30   |  |                |              |                       |                               | /                         | 2                | Peter |           |
|                   |                       |         |  |                |              |                       |                               |                           |                  |       |           |
|                   |                       |         |  |                |              |                       |                               |                           |                  |       |           |

Checked by :

3/10

Date

Contract Title Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant Contract No. : 13/WSD/17

| Serial No. | Monitoring Equipment | Last Calibration |
|------------|----------------------|------------------|
| 254938     | GMI-PS500            | 2/9/2022         |
|            |                      |                  |
|            |                      |                  |

| Monitoring        | Date                | Time    | Weather Condition                                    |                | Landfill Gas | Parameters            |                               | Physical Parameters       |                  | Measu | ured by   |
|-------------------|---------------------|---------|--|----------------|--------------|-----------------------|-------------------------------|---------------------------|------------------|-------|-----------|
| Location          | (dd/mm/yyyy)        | (hh:mm) | Sunny/ Fine/ Overcast/<br>Drizzle/ Rain/ Storm/ Hazy | Methane (%LEL) | Oxygen (%)   | Carbon Dioxide<br>(%) | Balance Gas (%)<br>(e.g. H2S) | Temp (°C) / Pressure mBar | Trench Depth (m) | Name  | Signature |
| Ch1+513 - Ch1+625 | 26 / 9/ 2022        | 8:30    | Fire   | Ø              | 201          | 0.04                  | P                             | 29,7 / 1009,1             | 2                | Peter | Mar       |
| Ch1+513 - Ch1+625 | Vo / 9/ 2022        | 13:30   | Fire   | 0              | 20-1         | 0.04                  | o                             | Jul / 100911              | 2                | Peter | Mon       |
| Ch1+513 - Ch1+625 | บๅ /9/2022          | 8:30    | Suriny,  | 6              | 2019         | ٥٫٥٩                  | 0                             | 29,4 1/007.1              | 2                | Peter | hopen.    |
| Ch1+513 - Ch1+625 | い / 9/ 2022         | 13:30   | Surry  | ٥              | 20.          | د لو                  | ρ                             | 321 / 1007.1              | 2                | Peter | WER       |
| Ch1+513 - Ch1+625 | <b>າ</b> ۇ∕9/2022   | 8:30    | Fire   | 0              | Ju. 9        | 0,04                  | 0                             | 29,9 / 1008               | 2                | Peter | Wen       |
| Ch1+513 - Ch1+625 | <b>H</b> 19/2022    | 13:30   | Fin  | 0              | 20.9         | ٥٫٥٤٩                 | 0                             | 34.5 / 1008               | 2                | Peter | M.M.      |
| Ch1+513 - Ch1+625 | レタ / 9/ 2022        | 8:30    | Fire   | Ь              | W.P          | ٥٦٢٩                  | 0                             | 28.5 / Tulu.1             | 2                | Peter | Afr       |
| Ch1+513 - Ch1+625 | ▶ / 9/ 2022         | 13:30   | I/me   | 0              | W.J          | 0.04                  | 0                             | 29.5 / 10/001             | 2                | Peter | hten.     |
| Ch1+513 - Ch1+625 | 2022 / 9 مر         | 8:30    | Surray   | อ              | 20.9         | 0,04                  | 'n                            | 267 / 101213              | 2                | Peter | MAR.      |
| Ch1+513 - Ch1+625 | <b>}0</b> / 9/ 2022 | 13:30   | Sunny  | þ              | J.o.[        | over                  | Э                             | 28.9 / (923)              | 2                | Peter | Wer       |
| Ch1+513 - Ch1+625 | / 9/ 2022           | 8:30    | l  | •              | 1            |                       |                               | /                         | 2                | Peter |           |
| Ch1+513 - Ch1+625 | / 9/ 2022           | 13:30   |  |                |              |                       |                               | /                         | 2                | Peter |           |
| Ch1+513 - Ch1+625 | / 9/ 2022           | 8:30    |  |                |              |                       |                               | /                         | 2                | Peter |           |
| Ch1+513 - Ch1+625 | / 9/ 2022           | 13:30   |  |                |              |                       |                               | /                         | 2                | Peter |           |
|                   |                     |         |  |                |              |                       |                               |                           |                  |       |           |
|                   |                     |         |  |                |              |                       |                               |                           |                  |       |           |

HFEr Checked by : Date





# Appendix M

## **HOKLAS** Laboratory Certificate

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Hong Kong Accreditation Service 香港認可處

#### Certificate of Accreditation 認可證書

This is to certify that 特此證明

#### ACUMEN LABORATORY AND TESTING LIMITED

浩科檢測中心有限公司

Lot 12, Tam Kon Shan Road, North Tsing Yi, New Territories, Hong Kong 香港新界青衣北担杆山路12路段

is accredited by the Hong Kong Accreditation Service (HKAS) to ISO/IEC 17025:2017 for performing specific laboratory activities as listed in the scope of accreditation within the test category of *獲香港認可處根據ISO/IEC* 17025:2017認可 進行載於認可範圍內下遞測試類別中的指定實驗所活動

#### **Environmental Testing**

環境測試

This accreditation to ISO/IEC 17025:2017 demonstrates technical competence for a defined scope and the implementation of a management system relevant to laboratory operation (see joint IAF-ILAC-ISO Communiqué). 此項 ISO/IEC 17025:2017 的認可資格證明此實驗所具備指定範疇內所須的技術能力並 實施一套與實驗所還作相關的管理體系 (見圖原認可論道、國際實驗所認可合作相識及圖嚴標準化組織的聯合公報)。

The common seal of HKAS is affixed hereto by the authority of the HKAS Executive 現經香港認可處執行機關授權在此蓋上香港認可處的印章

SHOM Wall-leung, Executive Administrator

執行幹事 沈偉良 Issue Date: 2 December 2019 簽發日期:二零一九年十二月二日

Registration Number : HOKLAS 241 註冊號碼 :



Date of First Registration: 16 July 2014 首次註冊日期:二零一四年七月十六日

This certificate is issued subject to the terms and conditions laid down by HKAS 本證書披照香港認可處訂立的條款及條件發出 L001875





# Appendix N

# Water Quality and Landfill Gas Equipment Calibration Certificate

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#### 專業化驗有限公司 QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong Email: info@qualityprotest.com; Website: www.qualityprotest.com Tel: (852) 3956 8717; Fax: (852) 3956 3928

#### **REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION**

Test Report No. Date of Issue Page No. : R-BB080078 : 29 August 2022 : 1 of 2

#### **PART A - CUSTOMER INFORMATION**

Acuity Sustainability Consulting Limited Unit E, 12/F, Ford Glory Plaza 37-39 Wing Hong Street, Cheung Sha Wan Kowloon (HK) Hong Kong

#### **PART B - SAMPLE INFORMATION**

| Name of Equipment :        | HORIBA U-53      |
|----------------------------|------------------|
| Manufacturer :             | HORIBA           |
| Serial Number :            | THAUKESL         |
| Date of Received :         | 26 August 2022   |
| Date of Calibration :      | 26 August 2022   |
| Date of Next Calibration : | 25 November 2022 |
| Request No. :              | D-BB080078       |

#### PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

| <u>Test Parameter</u> | Reference Method  |
|-----------------------|---|
| pH value              | APHA 21e 4500 H+  |
| Temperature           | Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March |
|                       | 2008: Working Thermometer Calibration Procedure   |
| Salinity              | APHA 21e 2520B  |
| Dissolved oxygen      | APHA 21e 4500 O   |
| Turbidity             | APHA 21e 2130B  |

#### PART D - CALIBRATION RESULT

#### (1) pH value

| Target ( pH unit ) | Display Reading ( pH unit ) | Tolerance | Result       |
|--------------------|-----------------------------|-----------|--------------|
| 4.00               | 4.12                        | 0.12      | Satisfactory |
| 7.42               | 7.51                        | 0.09      | Satisfactory |
| 10.01              | 10.17                       | 0.16      | Satisfactory |

Tolerance of pH value should be less than  $\pm$  0.2 ( pH unit )

#### (2) Temperature

| Reading of Ref. thermometer ( °C ) | Display Reading ( °C ) | Tolerance | Result       |
|------------------------------------|------------------------|-----------|--------------|
| 15.0                               | 14.66                  | -0.34     | Satisfactory |
| 22.0                               | 20.20                  | -1.80     | Satisfactory |
| 38.0                               | 36.09                  | -1.91     | Satisfactory |

Tolerance of Temperature should be less than  $\pm$  2.0 ( °C )

#### (3) Salinity

| Expected Reading (g/L) | Display Reading ( g/L ) | Tolerance ( % ) | Result       |
|------------------------|-------------------------|-----------------|--------------|
| 10                     | 10.11                   | 1.10            | Satisfactory |
| 20                     | 20.56                   | 2.80            | Satisfactory |
| 30                     | 30.19                   | 0.63            | Satisfactory |

Tolerance of Salinity should be less than  $\pm$  10.0 ( % )

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED SIGNATORY:

LEE Chun-ning Assistant Manager (Chemical Testing)



#### **REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION**

| Test Report No. | : F |
|-----------------|-----|
| Date of Issue   | : 2 |
| Page No.        | : 2 |

#### : R-BB080078 : 29 August 2022 : 2 of 2

#### (4) Dissolved oxygen

| Expected Reading ( mg/L ) | Display Reading ( mg/L ) | Tolerance | Result       |
|---------------------------|--------------------------|-----------|--------------|
| 8.13                      | 7.87                     | -0.26     | Satisfactory |
| 6.54                      | 6.80                     | 0.26      | Satisfactory |
| 1.28                      | 1.23                     | -0.05     | Satisfactory |
| 0.15                      | 0.11                     | -0.04     | Satisfactory |

Tolerance of Dissolved oxygen should be less than  $\pm\,0.5$  ( mg/L )

#### (5) Turbidity

| Expected Reading (NTU) | Display Reading (NTU) | Tolerance (%) | Result       |
|------------------------|-----------------------|---------------|--------------|
| 0                      | 0.51                  |               | Satisfactory |
| 10                     | 9.70                  | -3.00         | Satisfactory |
| 20                     | 19.2                  | -4.00         | Satisfactory |
| 100                    | 94.6                  | -5.40         | Satisfactory |
| 800                    | 768                   | -4.00         | Satisfactory |

Tolerance of Turbidity should be less than  $\pm$  10.0 (%)

#### Remark(s)

•The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards. •The results relate only to the calibrated equipment as received

•The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

"Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.

•The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form relevant international standards.

--- END OF REPORT ---



專業化驗有限公司 OUALITY PRO TEST-CONSULT LIMITED

Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong Email: info@qualityprotest.com; Website: www.qualityprotest.com Tel: (852) 3956 8717; Fax: (852) 3956 3928

#### **REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION**

Test Report No. Date of Issue Page No. : R-BB090110 : 29 September 2022 : 1 of 2

#### **PART A - CUSTOMER INFORMATION**

Acuity Sustainability Consulting Limited Unit E, 12/F, Ford Glory Plaza 37-39 Wing Hong Street, Cheung Sha Wan Kowloon (HK) Hong Kong

#### **PART B - SAMPLE INFORMATION**

| Name of Equipment :        | YSI ProDSS (Multi-Parameters) |  |
|----------------------------|-------------------------------|--|
| Manufacturer :             | YSI (a xylem brand)           |  |
| Serial Number :            | 22C106561                     |  |
| Date of Received :         | 27 September 2022             |  |
| Date of Calibration :      | 27 September 2022             |  |
| Date of Next Calibration : | 26 December 2022              |  |
| Request No. :              | D-BB090110                    |  |

#### PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

| Reference Method  |
|---|
| APHA 21e 4500 H <sup>+</sup>  |
| Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March |
| 2008: Working Thermometer Calibration Procedure   |
| APHA 21e 2520 B   |
| APHA 21e 4500 O   |
| APHA 21e 2130 B   |
| A<br>A<br>A<br>A  |

#### PART D - CALIBRATION RESULT

#### (1) pH value

| Target ( pH unit ) | Display Reading ( pH unit ) | Tolerance | Result       |
|--------------------|-----------------------------|-----------|--------------|
| 4.00               | 4.00                        | 0.00      | Satisfactory |
| 7.42               | 7.42                        | 0.00      | Satisfactory |
| 10.01              | 10.09                       | 0.08      | Satisfactory |

Tolerance of pH value should be less than  $\pm$  0.2 ( pH unit )

#### (2) Temperature

| Reading of Ref. thermometer ( °C ) | Display Reading ( °C ) | Tolerance | Result       |
|------------------------------------|------------------------|-----------|--------------|
| 16                                 | 15.4                   | -0.6      | Satisfactory |
| 26                                 | 25.5                   | -0.5      | Satisfactory |
| 45                                 | 44.6                   | -0.4      | Satisfactory |

Tolerance of Temperature should be less than  $\pm 2.0$  ( °C )

#### (3) Salinity

| Expected Reading (g/L) | Display Reading ( g/L ) | Tolerance ( % ) | Result       |
|------------------------|-------------------------|-----------------|--------------|
| 10                     | 9.68                    | -3.20           | Satisfactory |
| 20                     | 20.20                   | 1.00            | Satisfactory |
| 30                     | 31.43                   | 4.77            | Satisfactory |

Tolerance of Salinity should be less than  $\pm$  10.0 ( % )

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED SIGNATORY:

LEE Chun-hing

Assistant Manager (Chemical Testing)

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#### **REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION**

| Test Report No. |  |
|-----------------|--|
| Date of Issue   |  |
| Page No.        |  |

: R-BB090110 : 29 September 2022 : 2 of 2

#### (4) Dissolved oxygen

| Expected Reading ( mg/L ) | Display Reading ( mg/L ) | Tolerance | Result       |
|---------------------------|--------------------------|-----------|--------------|
| 7.58                      | 7.63                     | 0.05      | Satisfactory |
| 5.05                      | 4.80                     | -0.25     | Satisfactory |
| 2.99                      | 2.71                     | -0.28     | Satisfactory |
| 0.90                      | 0.61                     | -0.29     | Satisfactory |

Tolerance of Dissolved oxygen should be less than  $\pm$  0.5 ( mg/L )

#### (5) Turbidity

| Expected Reading (NTU) | Display Reading ( NTU ) | Tolerance (%) | Result       |
|------------------------|-------------------------|---------------|--------------|
| 0                      | 0.90                    |               | Satisfactory |
| 10                     | 10.40                   | 4.0           | Satisfactory |
| 20                     | 20.90                   | 4.5           | Satisfactory |
| 100                    | 101.77                  | 1.8           | Satisfactory |
| 800                    | 807.66                  | 1.0           | Satisfactory |

Tolerance of Turbidity should be less than  $\pm$  10.0 ( % )

#### Remark(s)

•The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards. •The results relate only to the calibrated equipment as received

•The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

"Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.

•The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form relevant international standards.

--- END OF REPORT ----



| Customer Name          | PROMAT (HK) LTD   |
|------------------------|-------------------|
| Customer Details       | SAN PO KONG       |
|                        | KOWLOON           |
|                        | HONG KONG         |
|                        |                   |
| Order Number           | 21000418          |
| Acknowledgement Number | 165921            |
|                        |                   |
| Instrument             | PS500             |
| Serial number          | 254928            |
| Test Date              | 29 September 2021 |

This instrument has been manufactured in accordance with our ISO9001 approved procedures and conforms to the quality and manufacturing standards laid down in our process. This instrument has been calibrated using gases that are traceable to national standards.

#### CALIBRATION RESULTS

| Gas Applied | Conc.      | Range | After Cal |
|-------------|------------|-------|-----------|
| CO2         | 3.00 % CO2 | ÷     | 3.00 %    |
| Methane     | 50 % LEL   | LEL   | 50 %      |
| 02          | Air        | & VOL | 20.9 %    |
| H2S         | 50 PPM H2S | PPM   | 50 PPM    |
| со          | 500 PPM CO | PPM   | 499 PPM   |

Calibrated on behalf of GMI Ltd by:





Page 1 of 1

#### CALIBRATION CERTIFICATE OF MULTI GAS DETECTOR

Client : China State Construction Engineering (Hong Kong) Ltd.

Address : 29/F., China Overseas Bldg., 139 Hennessy Road, Hong Kong

#### Unit-Under-Test (UUT) Information

| Description  | : | Multi gas detector |
|--------------|---|--------------------|
| Manufacturer | : | GMI                |
| Model No.    | : | PS500              |
| Serial No.   | : | 25492809/21        |

#### **Calibrator Information**

| Description              | : | (1) 4 in 1 Std. gases (O <sub>2</sub> ,H <sub>2</sub> S,CO,LEL(Methane)) | (2) Std. CO <sub>2</sub> gas (0.30%) |
|--------------------------|---|--|--------------------------------------|
| Serial No.               | : | (1) C-048-06   | (2) C-087-02                         |
|                          |   |  |                                      |
| Received date            | ; | 2 Sept., 2022  |                                      |
| Date of calibration      | : | 2 Sept., 2022  |                                      |
| Next calibration date    | į | 1 Sept., 2023  |                                      |
| Calibration location     | : | YSF Calibration Laboratory   |                                      |
| Environmental conditions | ; | 20.9-21.8°C / 52-63%RH   |                                      |
| Method used              | 1 | By direct comparison   |                                      |

#### **Calibration Results :**

| Parameters                    | Measured value |
|-------------------------------|----------------|
| (1) Methane (50% LEL)         | 47% LEL        |
| (2) Oxygen (18%)              | 18.2%          |
| (3) Hydrogen Sulphide (25ppm) | 23ppm          |
| (4) Carbon monoxide (100ppm)  | 96ppm          |
| (5) Carbon monoxide (0.30%)   | 0.28%          |

#### Remark :

1. The equipment used in this calibration is traceable to recognized National Standards.

Date : 2 Sept. 2022 Tested by : Lam Man Kwong Date : 2 Sept., 2022 Certified by So Chi Kuen (Lab Manager)

\*\* End of Certificate \*\*

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# Appendix O

# Exceedance Report (s)

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#### **Bi-Weekly Incident Report on Action Level or Limit Level Non-Compliance**

| Date of Monitoring |                |           |                    | Result     |                 | n Level<br>g/L) |                 | Level<br>g/L) |  | Marine construction | Exceedance related to | Reaso        | ons of n | on-proje     | ct relate    | d excee               | dance |  |
|--------------------|----------------|-----------|--------------------|------------|-----------------|-----------------|-----------------|---------------|--|---------------------|-----------------------|--------------|----------|--------------|--------------|-----------------------|-------|--|
| exceedance Station | Tide           | Parameter | (mg/L)             | 95%-ile    | Control<br>120% | 99%-ile         | Control<br>130% | Exceedance    | activities with<br>contact with<br>water (Y/N) | Project<br>(Y/N)    | (1)                   | (2)          | (3)      | (4)          | (5)          | (6)                   |       |  |
|                    | WSR1           |           |                    | 6.3        |                 |                 |                 |               | Limit Level                                    | Y                   | Ν                     | ✓            |          | ✓            | $\checkmark$ | ✓                     | ✓     |  |
|                    | WSR3           | Flood     | Suspended<br>Solid | 4.7        | 5               | 4.3             | 6               | 4.7           | Limit Level                                    | Y                   | Ν                     | ✓            |          | ✓            | √            | ✓                     | ✓     |  |
| 01/00/2022         | WSR4           |           |                    | 5.1        |                 |                 |                 |               | Limit Level                                    | Y                   | N                     | ✓<br>✓       |          | ✓<br>✓       | ✓            | <ul> <li>✓</li> </ul> | ✓     |  |
| 01/09/2022         | WSR2<br>WSR4   |           |                    | 3.8<br>3.7 | -               |                 |                 |               | Limit Level<br>Limit Level                     | Y<br>Y              | N<br>N                | $\checkmark$ |          | $\checkmark$ | $\checkmark$ | $\checkmark$          |       |  |
|                    | WSR4<br>WSR16  | Ebb       |                    | 4.6        | 5               | 3.2             | 6               | 3.5           | Limit Level                                    | Y I                 | N                     | •<br>•       |          | ▼<br>✓       | •<br>√       | •<br>•                |       |  |
|                    | WSR10<br>WSR36 |           |                    | 4.1        | -               |                 |                 |               | Limit Level                                    | Y                   | N                     |              |          | ✓            | √            | √                     |       |  |
|                    | WSR1           |           |                    | 5.5        |                 |                 |                 |               | Action Level                                   | Y                   | N                     | √            | ✓        | ✓            | $\checkmark$ |                       |       |  |
|                    | WSR2           |           |                    |            | 6.2             |                 |                 |               |  | Limit Level         | Y                     | N            | √        | ✓            | ✓            | ✓                     |       |  |
|                    | WSR3           |           |                    | 5.8        |                 |                 | 6               | 6.9           | Action Level                                   | Y                   | N                     | ✓            | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR4           | Flood     | Suspended          | 6.3        | 5               | 6.4             |                 |               | Limit Level                                    | Y                   | N                     | ✓            | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR16          |           |                    | 5.4        | -               |                 |                 |               | Action Level                                   | Y                   | N                     | ✓            | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR36          |           |                    | 5.7        | -               |                 |                 |               | Action Level                                   | Y                   | N                     |              | ✓        | ✓            | ✓            |                       |       |  |
| 03/09/2022 W       | WSR50          |           | Solid              | 6.2        |                 |                 | 6               | 6 9.5         | Limit Level                                    | Y                   | N                     | ✓            | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR3           |           |                    | 7.7        | -               |                 |                 |               | Limit Level                                    | Y                   | N                     | ✓            | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR4           |           |                    | 6.4        | 5               | 8.8             |                 |               | Limit Level                                    | Y                   | N                     | ✓            | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR33          | Ebb       |                    | 8.3        |                 |                 |                 |               | Limit Level                                    | Y                   | N                     |              | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR36          |           |                    | 6.8        |                 |                 |                 |               | Limit Level                                    | Y                   | N                     |              | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR37          |           |                    | 8.7        | -               |                 |                 |               | Limit Level                                    | Y                   | N                     |              | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR1           |           |                    | 7.0        |                 |                 |                 |               | Limit Level                                    | Y                   | N                     | $\checkmark$ | ✓        | ✓            | $\checkmark$ |                       |       |  |
|                    | WSR33          |           |                    | 6.1        |                 |                 |                 | 6 8.7         | Limit Level                                    | Y                   | N                     |              | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR36          | Flood     |                    | 5.7        | 5               | 8.0             | 6               |               | Action Level                                   | Y                   | N                     |              | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR37          |           |                    | 6.5        |                 |                 |                 |               | Limit Level                                    | Y                   | N                     |              | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR1           |           |                    | 7.5        |                 |                 |                 |               | Limit Level                                    | Y                   | N                     | √            | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR2           |           | Suspended          | 9.3        |                 |                 |                 |               | Limit Level                                    | Y                   | N                     | √            | ✓        | ✓            | ✓            |                       |       |  |
| 06/09/2022         | WSR3           |           | Solid              | 8.7        |                 |                 |                 |               | Limit Level                                    | Y                   | N                     | ✓            | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR4           |           |                    | 7.3        | 1               |                 |                 |               | Limit Level                                    | Y                   | N                     | ✓            | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR16          | Ebb       |                    | 5.6        | 5               | 8.4             | 6               | 9.1           | Action Level                                   | Y                   | N                     | ✓            | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR33          |           |                    | 7.3        | -               |                 |                 |               | Limit Level                                    | Y                   | N                     |              | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR36          |           |                    | 7.2        | -               |                 |                 |               | Limit Level                                    | Y                   | N                     |              | ✓        | ✓            | ✓            |                       |       |  |
|                    | WSR30          |           |                    | 7.2        | -               |                 |                 |               | Limit Level                                    | Y                   | N                     |              | ✓        | ✓            | ✓            |                       |       |  |



| Date of    | Monitoring         |       |                    | Result |         | n Level<br>g/L) | Limit<br>(mg | Level<br>g/L)   |              | Marine construction                            | Exceedance<br>related to | Reaso       | ons of n | on-proje | ect relate | ed excee | dance        |   |  |  |
|------------|--------------------|-------|--------------------|--------|---------|-----------------|--------------|-----------------|--------------|--|--------------------------|-------------|----------|----------|------------|----------|--------------|---|--|--|
| exceedance | exceedance Station | Tide  | Parameter          | (mg/L) | 95%-ile | Control 120%    | 99%-ile      | Control<br>130% | Exceedance   | activities with<br>contact with<br>water (Y/N) | Project<br>(Y/N)         | (1)         | (2)      | (3)      | (4)        | (5)      | (6)          |   |  |  |
|            | WSR1               |       |                    | 5.8    |         |                 |              |                 | Action Level | Ν  | Ν                        | ✓           | ✓        | ✓        | ✓          |          |              |   |  |  |
|            | WSR33              | Flood | Suspended<br>Solid |        | 8.2     | 5               | 9.0          | 6               | 9.8          | Limit Level                                    | N                        | Ν           |          | ✓        | ✓          | ✓        |              |   |  |  |
|            | WSR36              | Pioou |                    |        |         | 7.8             | 5            | 9.0             | 0            | 9.0  | Limit Level              | N           | N        |          | ✓          | ✓        | ✓            |   |  |  |
| 08/09/2022 | WSR37              |       |                    | 7.5    |         |                 |              |                 | Limit Level  | N  | Ν                        |             | ✓        | ✓        | ✓          |          |              |   |  |  |
| 08/09/2022 | WSR4               |       |                    | 8.0    |         |                 |              |                 | Limit Level  | N  | Ν                        | ✓           |          | ✓        | ✓          |          |              |   |  |  |
|            | WSR16              | Ebb   |                    |        | 8.2     | 5               | 4.2          | 6               | 4.6          | Limit Level                                    | N                        | Ν           | ✓        |          | ✓          | ✓        |              |   |  |  |
|            | WSR33              | EUU   |                    |        |         | 6.4             | 5            | 5 4.2           | 0            | 4.0  | Limit Level              | Ν           | Ν        |          |            | ✓        | $\checkmark$ |   |  |  |
|            | WSR36              |       |                    | 5.8    |         |                 |              |                 | Limit Level  | Ν  | Ν                        |             |          | ✓        | ✓          |          |              |   |  |  |
|            | WSR1               |       |                    | 5.4    |         |                 |              |                 | Limit Level  | N  | N                        | ✓           |          | ✓        | ✓          |          |              |   |  |  |
|            | WSR2               |       |                    | 5.7    |         |                 | 6            |                 | Limit Level  | N  | N                        | ✓           |          | ✓        | ✓          |          |              |   |  |  |
|            | WSR3               |       |                    | 5.0    |         |                 |              |                 | Action Level | N  | Ν                        | ✓           |          | ✓        | ✓          |          |              |   |  |  |
|            | WSR4               | El I  |                    | 5.8    | 5       | 4.9             |              | 5.3             | Limit Level  | N  | N                        | ✓           |          | ✓        | ✓          |          |              |   |  |  |
|            | WSR16 Floo         | FIOOD |                    | 5.5    | 5       |                 |              | U               | 5.5          | Limit Level                                    | N                        | Ν           | ✓        |          | ✓          | ✓        |              |   |  |  |
|            | WSR33              |       |                    |        |         |                 | 6.2          | 1               |              |  |                          | Limit Level | N        | Ν        |            |          | ✓            | ✓ |  |  |
|            | WSR36              |       |                    | 7.0    |         |                 |              |                 | Limit Level  | N  | Ν                        |             |          | ✓        | ✓          |          |              |   |  |  |
| 10/09/2022 | WSR37              |       | Suspended<br>Solid | 6.0    |         |                 |              |                 | Limit Level  | N  | Ν                        |             |          | ✓        | ✓          |          |              |   |  |  |
|            | WSR1               |       | 30110              | 5.6    |         |                 |              |                 | Action Level | N  | Ν                        | ✓           | ✓        | ✓        | ✓          |          |              |   |  |  |
|            | WSR3               |       |                    | 6.2    |         |                 |              |                 | Limit Level  | N  | Ν                        | ✓           | ✓        | ✓        | ✓          |          |              |   |  |  |
|            | WSR4               |       |                    | 10.2   |         |                 |              |                 | Limit Level  | N  | N                        | ✓           | ✓        | ✓        | ✓          |          |              |   |  |  |
|            | WSR16              | Ebb   |                    | 6.2    | 5       | 6.4             | 6            | 6.9             | Limit Level  | N  | N                        | ✓           | ✓        | ✓        | ✓          |          |              |   |  |  |
|            | WSR33              |       |                    | 7.2    |         |                 |              |                 | Limit Level  | N  | N                        |             | ✓        | ✓        | ✓          |          |              |   |  |  |
|            | WSR36              |       |                    | 7.7    |         |                 |              |                 | Limit Level  | N  | N                        |             | ✓        | ✓        | ✓          |          |              |   |  |  |
|            | WSR37              |       |                    | 6.8    |         |                 |              |                 | Limit Level  | N  | N                        |             | ✓        | ✓        | ✓          |          |              |   |  |  |
|            | WSR1               |       |                    | 9.2    |         |                 |              |                 | Limit Level  | N  | N                        | ✓           |          | ✓        | ✓          |          | ✓            |   |  |  |
| 12/00/2022 | WSR2               |       | Suspended          | 17.8   | _       | 2.5             |              | 2.0             | Limit Level  | N  | Ν                        | ✓           |          | ✓        | ✓          |          | ✓            |   |  |  |
| 13/09/2022 | WSR3 E             | Ebb   | Solid              | 19.8   | 5       | 3.5             | 6            | 3.8             | Limit Level  | N  | Ν                        | ✓           |          | ✓        | ✓          |          | ✓            |   |  |  |
|            | WSR4               |       |                    | 7.7    |         |                 |              |                 | Limit Level  | N  | Ν                        | ✓           |          | ✓        | ✓          |          | ✓            |   |  |  |



| Date of Monitoring |         | Result      |           | n Level<br>g/L) | Limit<br>(mg | Level<br>g/L)           |         | Marine construction | Exceedance related to |  | Reas             | son (s) o    | f exceed | lance |     |     |     |
|--------------------|---------|-------------|-----------|-----------------|--------------|-------------------------|---------|---------------------|-----------------------|--|------------------|--------------|----------|-------|-----|-----|-----|
| exceedance         | Station | Tide        | Parameter | (mg/L)          | 95%-ile      | 95%-ile Control<br>120% | 99%-ile | Control<br>130%     | Exceedance            | activities with<br>contact with<br>water (Y/N) | Project<br>(Y/N) | (1)          | (2)      | (3)   | (4) | (5) | (6) |
|                    | WSR1    | 1 5.6       |           |                 | Action Level | Ν                       | Ν       | ~                   | ~                     | ✓  | ~                |              |          |       |     |     |     |
|                    | WSR2    |             |           | 6.2             |              |                         |         | 6 9.1 -             | Limit Level           | N  | Ν                | ✓            | ✓        | ✓     | ✓   |     |     |
|                    | WSR3    |             |           | 8.2             |              |                         | (       |                     | Limit Level           | N  | Ν                | ✓            | ✓        | ✓     | ✓   |     |     |
|                    | WSR4    |             |           | 6.2             | 5            | 0.4                     |         |                     | Limit Level           | N  | Ν                | ✓            | ✓        | ✓     | ✓   |     |     |
|                    | WSR16   | Flood       |           | 6.7             | 5            | 8.4                     | 0       |                     | Limit Level           | N  | Ν                | ✓            | ✓        | ✓     | ✓   |     |     |
|                    | WSR33   |             | 7.8       |                 |              |                         |         | Limit Level         | Ν                     | Ν  |                  | ✓            | ✓        | ✓     |     |     |     |
|                    | WSR36   |             | Suspended | 10.0            |              |                         |         |                     | Limit Level           | N  | Ν                |              | ✓        | ✓     | ✓   |     |     |
| 15/00/2022         | WSR37   |             |           | 9.8             |              |                         |         |                     | Limit Level           | N  | Ν                |              | ✓        | ✓     | ✓   |     |     |
| 15/09/2022         | WSR1    |             | Solid     | 9.5             |              |                         |         |                     | Limit Level           | N  | Ν                | ✓            | ✓        | ✓     | ✓   |     |     |
|                    | WSR2    |             |           | 9.3             |              |                         |         |                     | Limit Level           | N  | Ν                | ✓            | ✓        | ✓     | ✓   |     |     |
|                    | WSR3    |             |           | 9.5             |              |                         |         |                     | Limit Level           | N  | Ν                | ✓            | ✓        | ✓     | ✓   |     |     |
|                    | WSR4    | <b>F</b> 11 |           | 10.3            | 5            | 11.0                    | (       | 11.0                | Limit Level           | N  | Ν                | ✓            | ✓        | ✓     | ✓   |     |     |
|                    | WSR16   | Ebb         |           | 9.0             | 5            | 11.0                    | 6       | 11.9                | Limit Level           | N  | Ν                | $\checkmark$ | ✓        | ✓     | ✓   |     |     |
|                    | WSR33   |             |           | 9.2             |              |                         |         |                     | Limit Level           | N  | Ν                |              | ✓        | ✓     | ✓   |     |     |
|                    | WSR36   | -           |           | 9.0             |              |                         |         |                     | Limit Level           | N  | Ν                |              | ✓        | ✓     | ✓   |     |     |
|                    | WSR37   |             |           | 8.5             |              |                         |         |                     | Limit Level           | N  | Ν                |              | ✓        | ✓     | ✓   |     |     |

Reasons of non-project related exceedance:

- 1) WSR1, WSR2, WSR3, WSR4, WSR16 were located distant from the construction site and possibility of being affected by marine construction activity was considered limited.
- 2) Control station value already exceed either the Action or Limit Level.
- 3) No algal bloom, silt plume or pollution discharge from site area was observed.
- 4) Water quality mitigation measures were observed maintained / implemented properly.
- 5) Rainfall was recorded at Tseung Kwan O during the monitoring period, rainfall may lead to release of SS content form the soil of the nearby lands (e.g., Country Park, fill bank).
- 6) No action and limit level exceedance observed at WSR36 (Intake Shaft) or WSR37 (Outfall Shaft).

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#### Conclusion:

During water quality monitoring on 1 September 2022, three (3) Limit Level exceedances of Suspended Solids were recorded during mid-flood tide, and four (4) Limit Level exceedances of Suspended Solids were recorded during mid-ebb tide. After investigation, all exceedances were considered non-project related.

During water quality monitoring on 3 September 2022, six (6) Action Level exceedances and two (2) Limit Level exceedances of Suspended Solids were recorded during mid-flood tide, and six (6) Limit Level exceedances were recorded of Suspended Solids during mid-ebb tide. After investigation, all exceedances were considered non-project related.

During water quality monitoring on 6 September 2022, four (4) Action Level exceedances and three (3) Limit Level exceedances of Suspended Solids were recorded during mid-flood tide, and eight (8) Action Level and seven (7) Limit Level exceedances were recorded of Suspended Solids during mid-ebb tide. After investigation, all exceedances were considered non-project related.

During water quality monitoring on 8 September 2022, four (4) Action Level exceedances and three (3) Limit Level exceedances of Suspended Solids were recorded during mid-flood tide, and four (4) Limit Level exceedances were recorded of Suspended Solids during mid-ebb tide. After investigation, all exceedances were considered non-project related.

During water quality monitoring on 10 September 2022, eight (8) Action Level exceedances and seven (7) Limit Level exceedances of Suspended Solids were recorded during mid-flood tide, and seven (7) Action Level exceedances and six (6) Limit Level exceedances were recorded of Suspended Solids during mid-ebb tide. After investigation, all exceedances were considered non-project related.

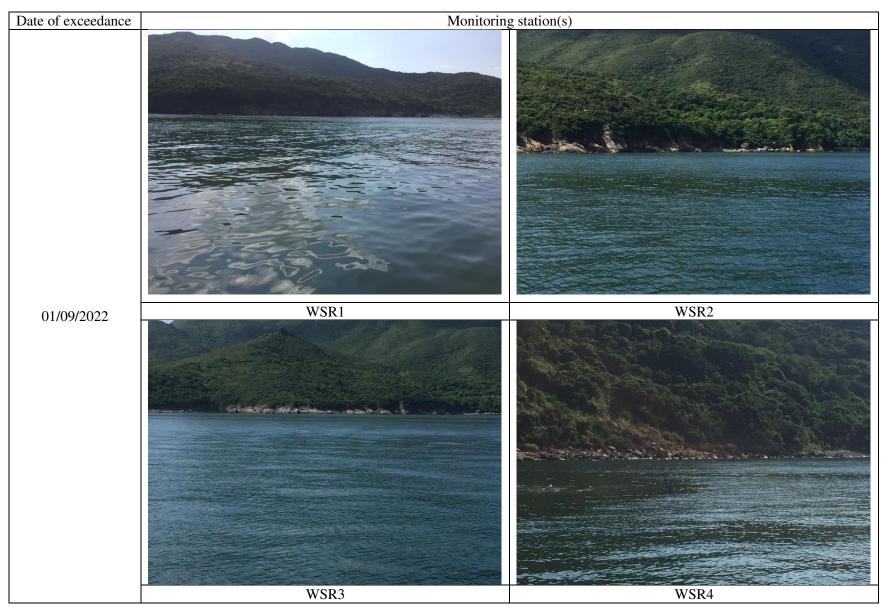
During water quality monitoring on 13 September 2022, four (4) Limit Level exceedances were recorded of Suspended Solids during mid-ebb tide. After investigation, all exceedances were considered non-project related.

During water quality monitoring on 15 September 2022, eight (8) Action Level exceedances and seven (7) Limit Level exceedances of Suspended Solids were recorded during mid-flood tide, and eight (8) Limit Level exceedances were recorded of Suspended Solids during mid-ebb tide. After investigation, all exceedances were considered non-project related.

Total Seventy-five (74) Action Level and sixty-four (64) Limit Level exceedances for Suspended Solid of impact water quality monitoring were recorded between 1 September 2022 and 15 September 2022. After investigation, all exceedances were considered non-project related.



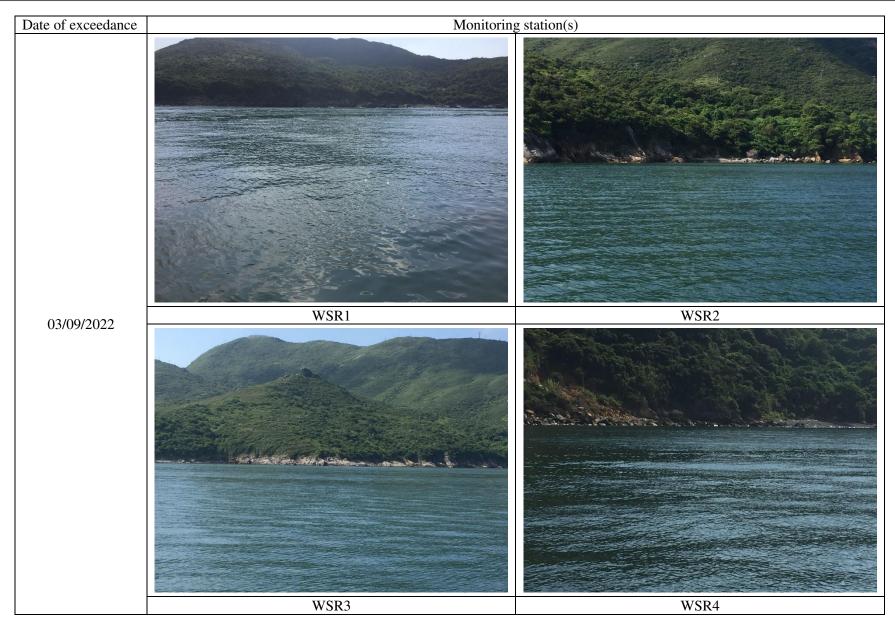
Supporting Photo:























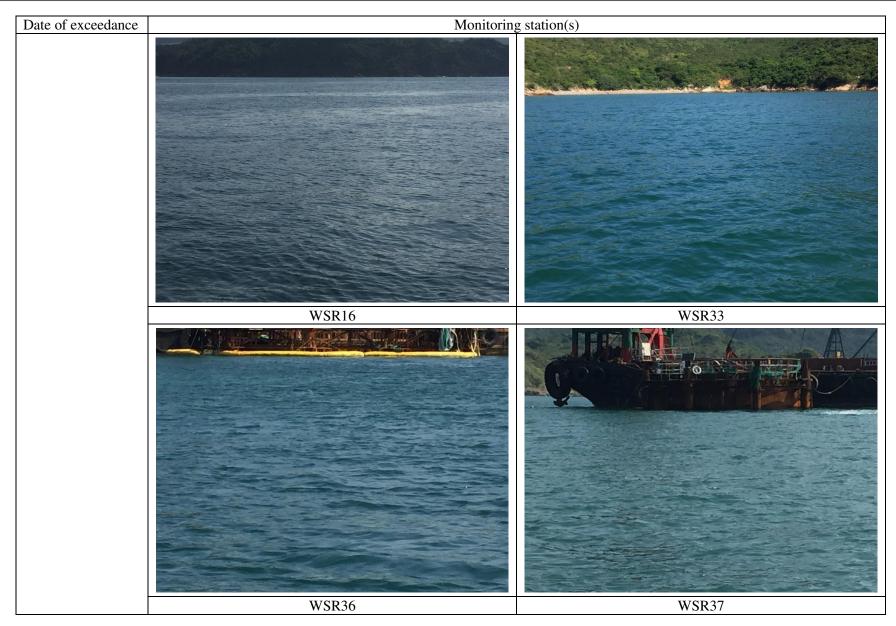




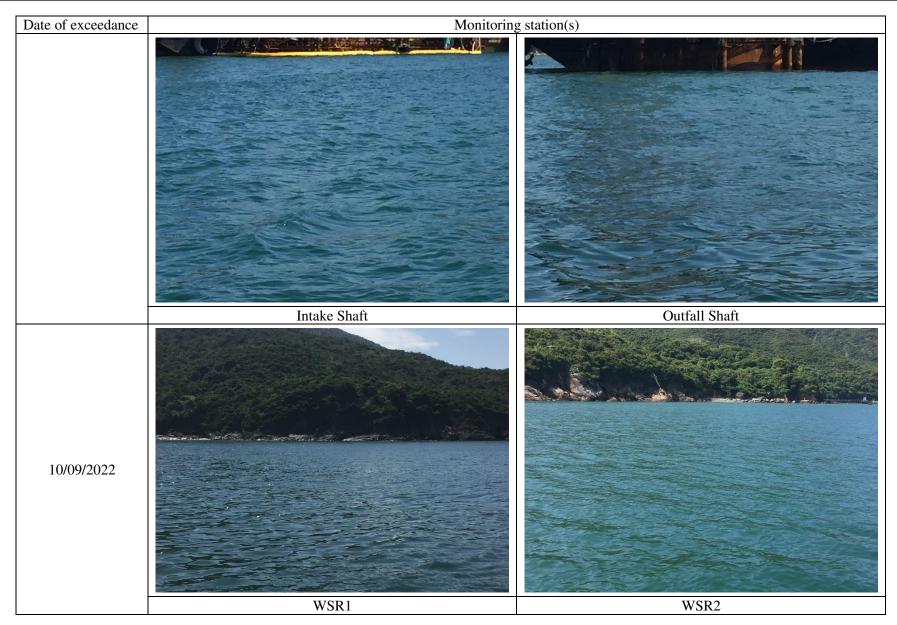








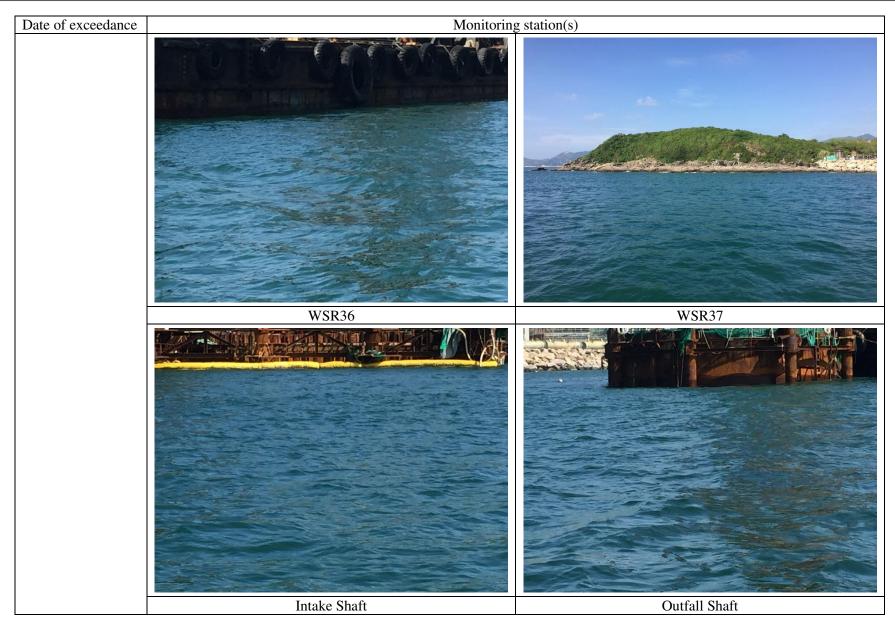








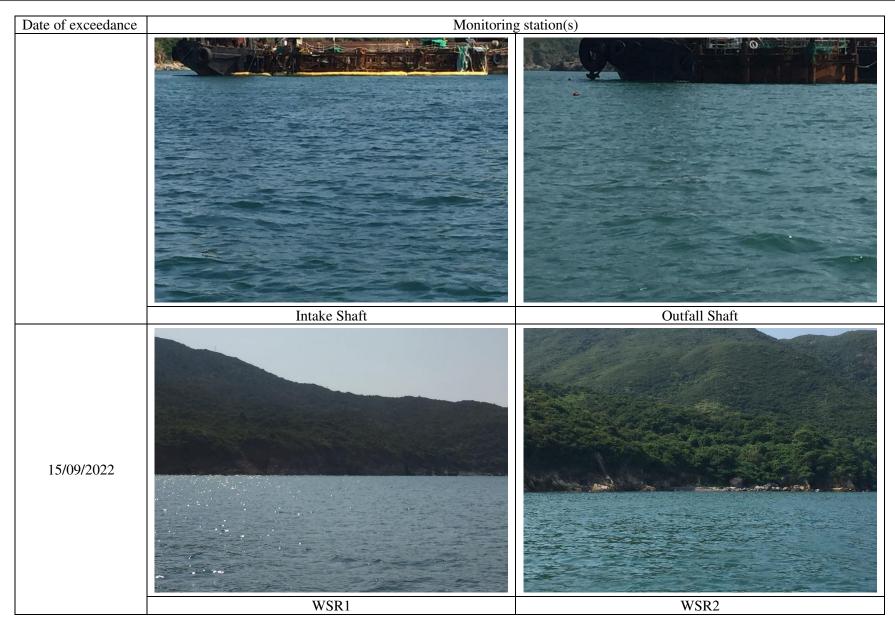
















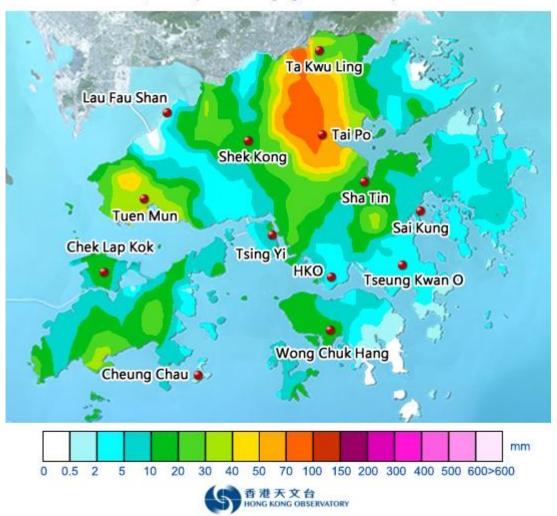






Rainfall Record from Hong Kong Observatory:

Total rainfall on 1-Sep-2022 (based on raingauges and radar data)





## **Bi-Weekly Incident Report on Action Level or Limit Level Non-Compliance**

| Date of exceedance | Monitoring<br>Station | Tide    | Parameter          | Result<br>(mg/L) | Action Level<br>(mg/L) |                 | Limit Level<br>(mg/L) |                 | Exceedance   | Marine<br>construction<br>activities with | Exceedance related to | Reasons of non-project related exceedance |              |              |     |              |     |     |     |
|--------------------|-----------------------|---------|--------------------|------------------|------------------------|-----------------|-----------------------|-----------------|--------------|---|-----------------------|---|--------------|--------------|-----|--------------|-----|-----|-----|
|                    |                       |         |                    |                  | 95%-ile                | Control<br>120% | 99%-ile               | Control<br>130% | Exceedance   | contact with<br>water (Y/N)               | Project<br>(Y/N)      | (1)                                       | (2)          | (3)          | (4) | (5)          | (6) | (7) | (8) |
| 17/09/2022         | WSR16                 | Flood   | Suspended          | 4.4              | 5.0                    | 3.0             | 6.0                   | 3.3             | Limit Level  | Y   | N                     | ✓   |              | ✓            | ✓   |              | ✓   |     | ✓   |
| 1110912022         | WSR37                 | Ebb     | Solid              | 6.2              | 5.0                    | 4.8             | 6                     | 5.2             | Limit Level  | Y   | N                     |   |              | ✓            |     |              |     |     | ✓   |
| 20/09/2022         | WSR2                  | - Flood | Suspended<br>Solid | 3.7              | 5.0                    | 3.5             | 6.0                   | 3.8             | Action Level | Y   | N                     | ✓   |              | ✓            | ✓   | ✓            |     |     | ✓   |
|                    | WSR3                  |         |                    | 4.0              |                        |                 |                       |                 | Limit Level  | Y   | N                     | ✓   |              | ✓            | ✓   | ✓            |     |     | ✓   |
|                    | WSR4                  |         |                    | 6.2              |                        |                 |                       |                 | Limit Level  | Y   | N                     | ✓   |              | $\checkmark$ | ✓   | ✓            |     |     | ✓   |
|                    | WSR16                 |         |                    | 5.2              |                        |                 |                       |                 | Limit Level  | Y   | N                     | ✓   |              | $\checkmark$ | ✓   | ✓            |     |     | ✓   |
|                    | WSR33                 |         |                    | 4.8              |                        |                 |                       |                 | Limit Level  | Y   | N                     |   |              | ✓            | ✓   | ✓            |     |     | ✓   |
|                    | WSR36                 |         |                    | 4.5              |                        |                 |                       |                 | Limit Level  | Y   | N                     |   |              | ✓            | ✓   | ✓            |     |     | ✓   |
|                    | WSR1                  | Ebb     |                    | 7.3              | 5.0                    | 7.5             | 6.0                   | 8.1             | Limit Level  | Y   | N                     | ✓   | ✓            | ✓            | ✓   | ✓            |     |     | ✓   |
|                    | WSR2                  |         |                    | 7.5              |                        |                 |                       |                 | Limit Level  | Y   | Ν                     | $\checkmark$                              | $\checkmark$ | $\checkmark$ | ✓   | $\checkmark$ |     |     | ✓   |
|                    | WSR3                  |         |                    | 7.2              |                        |                 |                       |                 | Limit Level  | Y   | Ν                     | ✓   | ~            | ✓            | ✓   | ✓            |     |     | ✓   |
|                    | WSR4                  |         |                    | 5.7              |                        |                 |                       |                 | Action Level | Y   | Ν                     | ✓   | ~            | ✓            | ✓   | ✓            |     |     | ✓   |
|                    | WSR33                 |         |                    | 6.0              |                        |                 |                       |                 | Action Level | Y   | Ν                     |   | ✓            | ✓            | ✓   | ✓            |     |     | ✓   |
|                    | WSR36                 |         |                    | 6.2              |                        |                 |                       |                 | Limit Level  | Y   | Ν                     |   | ✓            | ✓            | ✓   | ✓            |     |     | ✓   |
|                    | WSR37                 |         |                    | 5.3              |                        |                 |                       |                 | Action Level | Y   | Ν                     |   | ✓            | $\checkmark$ |     | ✓            |     |     | ✓   |
| 22/09/2022         | WSR3                  | Flood   | Suspended<br>Solid | 9.8              | 5.0                    | 5.3             | 6.0                   | 5.7             | Limit Level  | Y   | Ν                     | ✓   |              | ✓            | ✓   | ✓            | ✓   |     | ✓   |
|                    | WSR4                  |         |                    | 5.3              |                        |                 |                       |                 | Action Level | Y   | Ν                     | ✓   |              | ✓            | ✓   | ✓            | ✓   |     | ✓   |
|                    | WSR33                 |         |                    | 5.3              |                        |                 |                       |                 | Action Level | Y   | Ν                     |   |              | ✓            | ✓   | ✓            | ✓   |     | ✓   |
|                    | WSR1                  | Ebb     |                    | 8.2              | 5.0                    | 4.3             | 6.0                   | 4.7             | Limit Level  | Y   | Ν                     | ✓   |              | ✓            | ✓   | ✓            |     |     | ✓   |
|                    | WSR4                  |         |                    | 5.2              |                        |                 |                       |                 | Limit Level  | Y   | Ν                     | ✓   |              | ✓            | ✓   | ✓            |     |     | ✓   |
|                    | WSR16                 |         |                    | 4.6              |                        |                 |                       |                 | Action Level | Y   | Ν                     | ✓   |              | ✓            | ✓   | ✓            |     |     | ✓   |
|                    | WSR36                 |         |                    | 5.6              |                        |                 |                       |                 | Limit Level  | Y   | Ν                     |   |              | ✓            | ✓   | ✓            |     |     | ✓   |
| 24/09/2022         | WSR3                  | Flood   | Suspended          | 3.2              | 5.0                    | 3.0             | 6.0                   | 3.3             | Action Level | Y   | Ν                     | ✓   |              | ✓            | ✓   | ✓            | ✓   |     | ✓   |
|                    | WSR37                 | Ebb     | Solid              | 3.8              | 5.0                    | 3.6             | 6.0                   | 3.9             | Action Level | Y   | N                     |   |              | ✓            |     | ✓            |     |     | ✓   |
| 27/09/2022         | WSR33                 | Ebb     | Suspended<br>Solid | 4.9              | 5.0                    | 3.0             | 6.0                   | 3.3             | Limit Level  | Y   | N                     |   |              | ✓            | ✓   |              |     |     | ✓   |
|                    | WSR36                 |         |                    | 3.2              |                        |                 |                       |                 | Action Level | Y   | N                     |   |              | ✓            | ✓   |              | l   |     | ✓   |
| 29/09/2022         | WSR2                  | Flood S | Suspended<br>Solid | 5.3              |                        | 3.9             | 6.0                   | 4.2             | Limit Level  | N   | N                     | ✓   |              | ✓            | ✓   | ✓            | ✓   | ✓   | ✓   |
|                    | WSR3                  |         |                    | 7.3              |                        |                 |                       |                 | Limit Level  | N   | N                     | ✓   |              | ✓            | ✓   | ✓            | ✓   | ✓   | ✓   |
|                    | WSR4                  |         |                    | 6.2              | 5.0                    |                 |                       |                 | Limit Level  | N   | N                     | ✓   |              | ✓            | ✓   | ✓            | ✓   | ✓   | ✓   |
|                    | WSR16                 |         |                    | 8.3              |                        |                 |                       |                 | Limit Level  | N   | N                     | ✓   |              | ✓            | ✓   | ✓            | ✓   | ~   | ✓   |
|                    | WSR16                 |         |                    | 3.9              | 5.0                    | 3.0             | 6.0                   | 3.3             | Limit Level  | N   | N                     | ✓   |              | ✓            | ✓   | ✓            | ✓   | ~   | ✓   |



Reasons of non-project related exceedance:

- 1) WSR1, WSR2, WSR3, WSR4, WSR16 were located distant from the construction site and possibility of being affected by marine construction activity was considered limited.
- 2) Control station value already exceed either the Action or Limit Level.
- 3) No algal bloom, silt plume or pollution discharge from site area was observed.
- 4) Water quality mitigation measures (e.g., silt curtains enclosed the Shaft) were observed maintained / implemented properly.
- 5) Rainfall was recorded at Tseung Kwan O during the monitoring period, rainfall may lead to release of SS content form the soil of the nearby lands (e.g., Country Park, fill bank).
- 6) No action and limit level exceedance observed at WSR36 (Intake Shaft) or WSR37 (Outfall Shaft).
- 7) No marine construction activity was conducted at WSR36 (Intake Shaft).
- 8) No marine construction activity was conducted at WSR37 (Outfall Shaft).

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## Conclusion:

During water quality monitoring on 17 September 2022, one (1) Limit Level exceedance of Suspended Solids was recorded during mid-flood tide, and one (1) Limit Level exceedance of Suspended Solids was recorded during mid-ebb tide. After investigation, all exceedances were considered non-project related.

During water quality monitoring on 20 September 2022, one (1) Action Level and five (5) Limit Level exceedances of Suspended Solids were recorded during mid-flood tide, and three (3) Action Level and four (4) Limit Level exceedances were recorded of Suspended Solids during mid-ebb tide. After investigation, all exceedances were considered non-project related.

During water quality monitoring on 22 September 2022, two (2) Action Level and one (1) Limit Level exceedances of Suspended Solids were recorded during mid-flood tide, and one (1) Action Level and three (3) Limit Level exceedances were recorded of Suspended Solids during mid-ebb tide. After investigation, all exceedances were considered non-project related.

During water quality monitoring on 24 September 2022, one (1) Action Level exceedance of Suspended Solids was recorded during mid-flood tide, and one (1) Limit Level exceedance of Suspended Solids was recorded during mid-ebb tide. After investigation, all exceedances were considered non-project related.

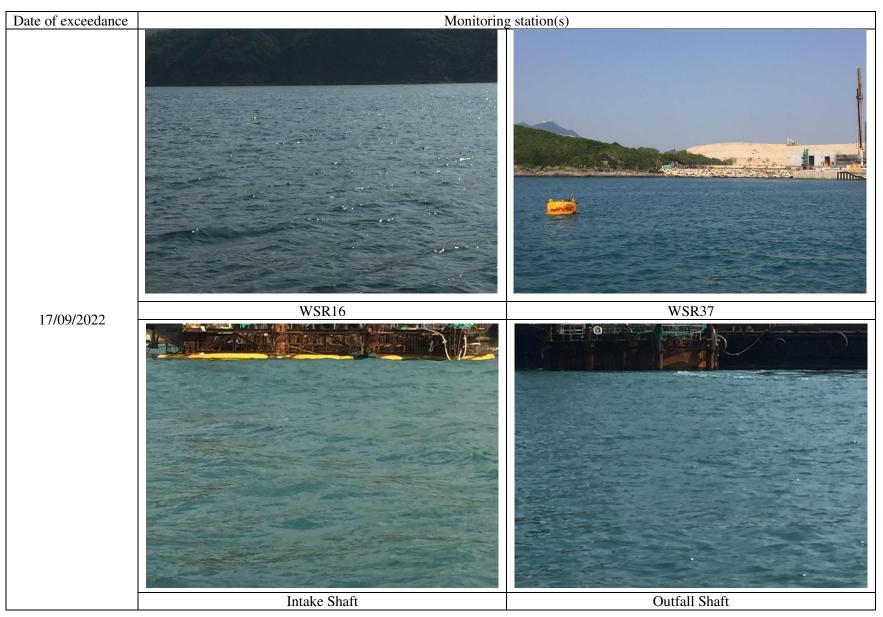
During water quality monitoring on 27 September 2022, one (1) Action Level and one (1) Limit Level exceedances of Suspended Solids were recorded during mid-ebb tide. After investigation, all exceedances were considered non-project related.

During water quality monitoring on 29 September 2022, four (4) Limit Level exceedances of Suspended Solids were recorded during mid-flood tide, and one (1) Limit Level exceedance of Suspended Solids was recorded during mid-ebb tide. After investigation, all exceedances were considered non-project related.

Total thirty-one (31) Action Level and twenty-one (21) Limit Level exceedances for Suspended Solid of impact water quality monitoring were recorded between 17 September 2022 and 29 September 2022. After investigation, all exceedances were considered non-project related.



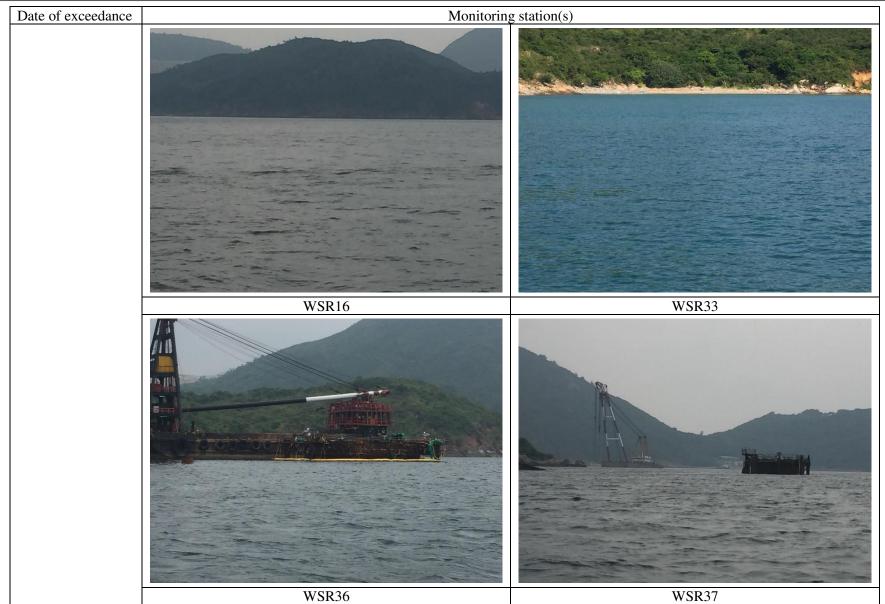
Supporting Photo:



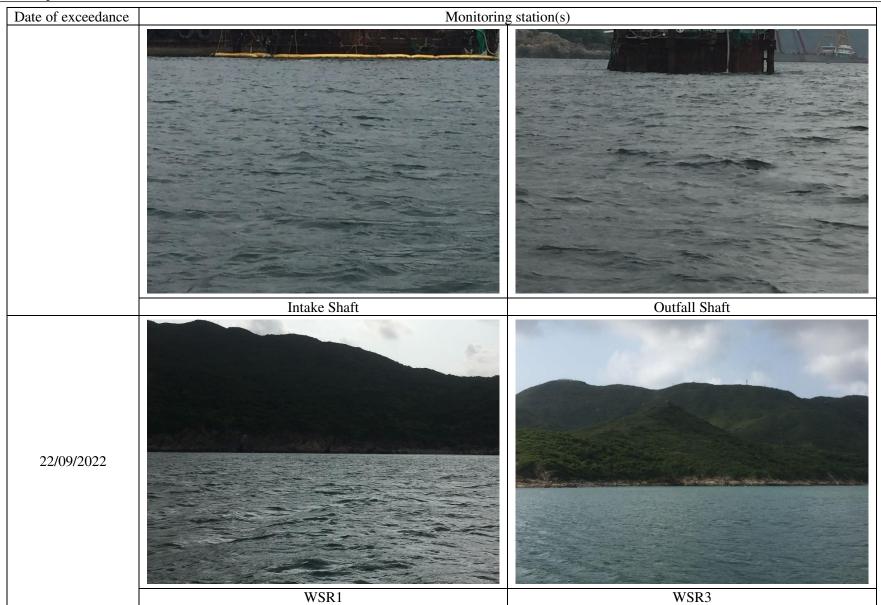




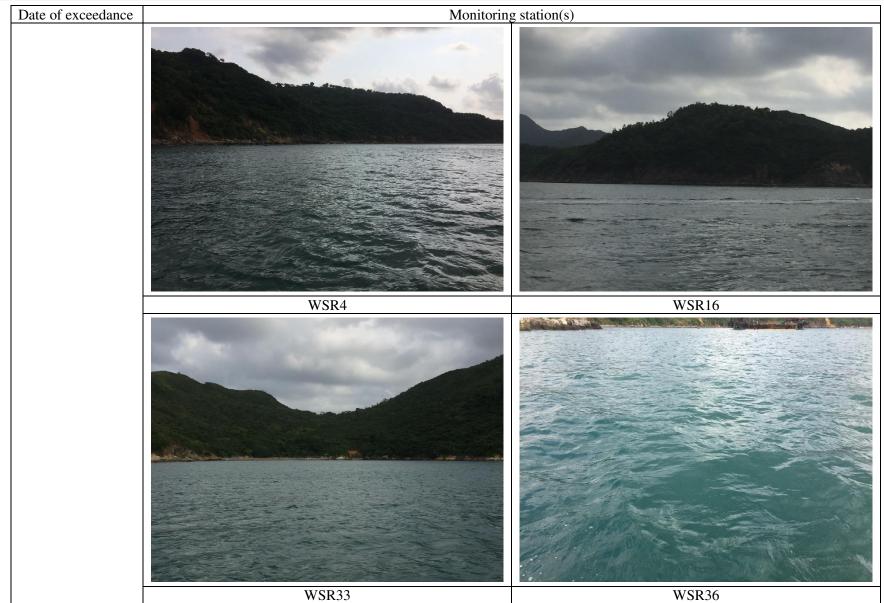








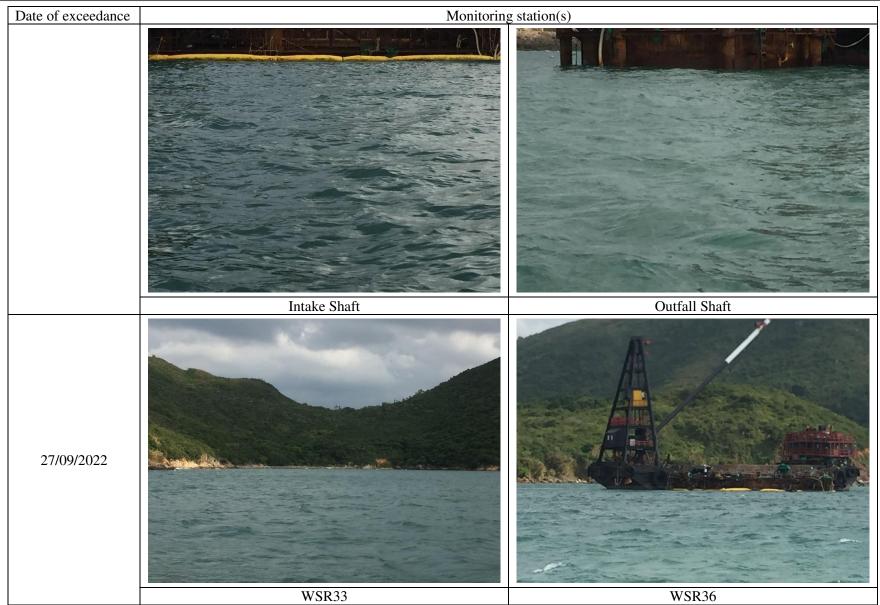




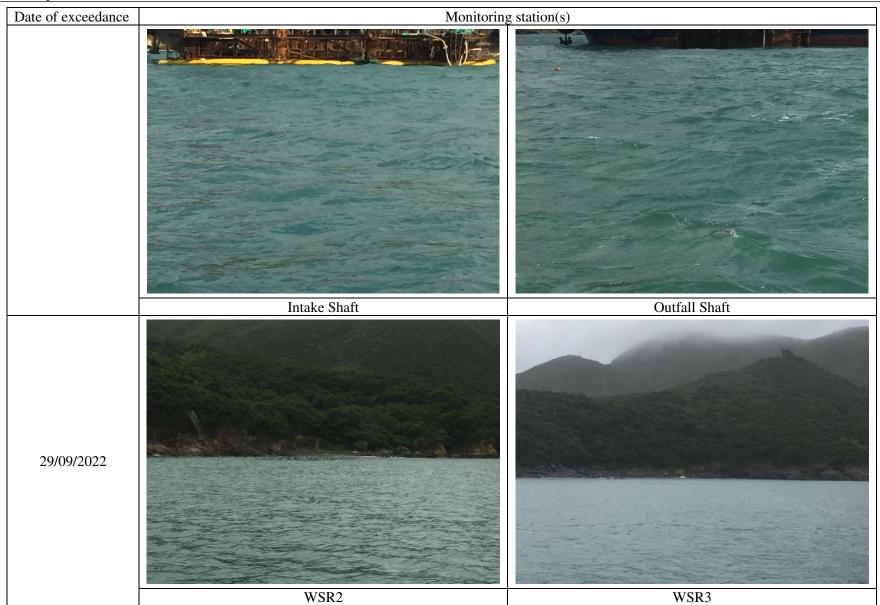


















## Rainfall Record from Hong Kong Observatory:

