

- Investigation

Monthly EM&A Report for Contaminated Mud Pits to the East of Sha Chau – June 2021

July 2021

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# Agreement No. CE 59/2020 (EP) Environmental Monitoring and Audit for Disposal Facility to the East of Sha Chau (2021-2026) - Investigation

Monthly EM&A Report for Contaminated Mud Pits to the East of Sha Chau – June 2021

July 2021





# Dredging, Management and Capping of Contaminated Sediment Disposal

# Facility at Sha Chau

# **Environmental Certification Sheet**

# Environmental Permit No. EP-312/2008/A

### **Reference Document /Plan**

Document/Plan to be Certified/ Verified:

Monthly EM&A Report for Contaminated Mud Pits to the

East of Sha Chau - June 2021

Date of Report:

9 July 2021

Date prepared by ET:

9 July 2021

Date received by IA:

9 July 2021

### **Reference EP Condition**

**Environmental Permit Condition:** 

Condition 3.4 of EP-312/2008/A:

4 hard copies and 1 electronic copy of monthly EM&A Report shall be submitted to the Director within 10 working days after the end of the reporting month. The EM&A Reports shall include a summary of all non-compliance (exceedances) of the environmental quality performance limits (Action and Limit Levels). The submissions shall be verified by the Independent Auditor. Additional copies of the submission shall be provided to the Director upon request by the Director.

# **ET Certification**

I hereby certify that the above referenced document/plan complies with the above referenced condition of EP-312/2008/A.

Mum Clin

Ir Thomas Chan,

Environmental Team Leader (ETL): /

Date: 9 July 2021

### **IA Verification**

I hereby verify that the above referenced document/plan complies with the above referenced condition of EP-312/2008/A.

Dr Wang Wen Xiong, Independent Auditor (IA):

Date: 9 July 2021

### i

# **Issue and Revision Record**

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# 1 Introduction

# 1.1 Background

The Civil Engineering and Development Department (CEDD) is managing a number of marine disposal facilities in Hong Kong waters, including the Contaminated Mud Pits (CMPs) to the East of Sha Chau (ESC) for the disposal of contaminated sediment, and various open-sea disposal grounds located to the South of Cheung Chau (SCC), East of Tung Lung Chau (ETLC) and East of Ninepins (ENP) for the disposal of uncontaminated sediment.

Environmental Permits (EPs) (Ref. No. EP-312/2008/A) was issued by the Environmental Protection Department (EPD) to the CEDD, the Permit Holder, on 28 November 2008 for the Project - Disposal of Contaminated Sediment – Dredging, Management and Capping of Sediment Disposal Facility at Sha Chau.

Under the requirements of the EP, EM&A programmes which encompass water and sediment chemistry, fisheries assessment, tissue and whole body analysis, sediment toxicity and benthic recolonisation studies as set out in the EM&A Manuals are required to be implemented. EM&A programmes have been continuously carried out during the operation of the CMPs at ESC. A review of the collection and analysis of such environmental data from the monitoring programme demonstrated that there had not been any adverse environmental impacts resulting from disposal activities. The current programme will assess the impacts resulting from dredging, disposal and capping operations of CMP V.

A proposal on the change of number of sample replication of water quality and sediment monitoring as well as combination of routine water quality monitoring and water quality monitoring during capping operation was submitted to EPD and agreed by EPD on 3 December 2020. The proposed changes have been effective for the EM&A activities since December 2020. The latest sampling schedule is provided in **Appendix A**.

The present EM&A programme under Agreement No. CE 59/2020 (EP) covers the dredging, disposal and capping operations of the ESC CMP V (see **Appendix A** for the EM&A programme.) Detailed works schedule for ESC CMP V is shown in **Table 1.1**. In June 2021, the following works were undertaken:

- Disposal of contaminated mud at ESC CMP Vb; and
- Capping operations at ESC CMP Vd.

Table 1.1: Works Schedule for ESC CMP V



<sup>&</sup>lt;sup>1</sup> ERM (2013) Final Report. Submitted under Agreement No. CE 4/2009 (EP) Environmental Monitoring and Audit for Contaminated Mud Pit at East Sha Chau. For CEDD.

<sup>&</sup>lt;sup>2</sup> ERM (2017) Final Report. Submitted under Agreement No. CE 23/2012 (EP) Environmental Monitoring and Audit for Contaminated Mud Pits to the South of The Brothers and at East Sha Chau (2012 - 2017). For CEDD.

# 1.2 Reporting Period

This Monthly EM&A Report for Contaminated Mud Pits to the East of Sha Chau – June 2021 covers the EM&A activities for the reporting period of June 2021 (from 1 to 30 June 2021).

# 1.3 Details of Sampling and Laboratory Testing Activities

The following monitoring activities were undertaken for ESC CMP V during the reporting period:

- Water Column Profiling of ESC CMP Vb;
- Routine Water Quality Monitoring of ESC CMPs;
- Pit Specific Sediment Chemistry of ESC CMP Vb; and
- Cumulative Impact Sediment Chemistry of ESC CMPs.

# 2 Brief Discussion of Monitoring Results for ESC CMP V

### 2.1 Introduction

This section presents a brief discussion of the results obtained from the following monitoring activities for ESC CMP V during the reporting period:

- Water Column Profiling of ESC CMP Vb;
- Routine Water Quality Monitoring of ESC CMPs;
- · Pit Specific Sediment Chemistry of ESC CMP Vb; and
- Cumulative Impact Sediment Chemistry of ESC CMPs.

# 2.2 Water Column Profiling of ESC CMP Vb – in June 2021

Water Column Profiling was undertaken at a total of two sampling stations (Upstream and Downstream stations) on 10 June 2021. The monitoring results have been assessed for compliance with the Water Quality Objectives (WQOs) set by Environmental Protection Department (EPD). This consists of a review of the EPD routine water quality monitoring data for the wet season period (April to October) of 2010 – 2019 from stations in the North Western Water Control Zone (WCZ), where the ESC CMPs are located.<sup>3</sup> For Salinity, the averaged value obtained from the Reference (Upstream) station was used for the basis as the WQO. Levels of Dissolved Oxygen (DO) and Turbidity were also assessed for compliance with the Action and Limit Levels (see **Table B1** of **Appendix B** for details).

### 2.2.1 In-situ Measurements

Analyses of results for June 2021 indicated that levels of Salinity, pH and DO complied with the WQOs at both Downstream and Upstream stations (**Table B2** of **Appendix B**). Levels of DO and Turbidity at all stations complied with the Action and Limit Levels (**Tables B1 and B2** of **Appendix B**).

## 2.2.2 Laboratory Measurements for Suspended Solids (SS)

Analyses of results for June 2021 indicated that the SS level at the Downstream station was higher than the WQO while the SS level at the Upstream station complied with the WQO, but levels complied with the Action and Limit Levels (**Tables B1 and B2** of **Appendix B**).

Overall, the monitoring results indicated that the mud disposal operation at ESC CMP Vb did not appear to cause any deterioration in water quality during this reporting period.

### 2.3 Routine Water Quality Monitoring of ESC CMPs – in June 2021

Routine Water Quality Monitoring of ESC CMPs was undertaken on 8 June 2021. The monitoring results have been assessed for compliance with the WQOs (see **Section 2.2** above for details). The monitoring results are shown in **Tables B3 and B4** of **Appendix B** and **Figures 1 to 10** of **Appendix C**. A total of sixteen (16) monitoring stations were sampled in June 2021 as shown in **Figure 2.1**.

<sup>&</sup>lt;sup>3</sup> http://epic.epd.gov.hk/EPICRIVER/marine/?lang=en

### 2.3.1 In-situ Measurements

Graphical presentation of the monitoring results (Temperature, DO, pH, Salinity and Turbidity) is shown in **Figures 1 to 6** of **Appendix C**. Analyses of results indicated that the levels of pH, Salinity and DO complied with the WQOs at most stations during the reporting period, except for higher levels of Salinity were recorded at Ma Wan station. The higher Salinities recorded at Ma Wan station are likely to be caused by the larger separation distance to Pearl River Delta mouth, which releases a large amount of freshwater runoff in the area during wet season, when compared to the Reference stations.

The levels of DO and Turbidity complied with the Action and Limit Levels at all stations (**Table B3** of **Appendix B**; **Figures 3 and 6** of **Appendix C**).

Overall, in-situ measurement results of the Routine Water Quality Monitoring indicated that the disposal and capping operation at ESC CMPs did not appear to cause any unacceptable impacts in water quality in June 2021.

### 2.3.2 Laboratory Measurements

Laboratory analysis of samples obtained during the reporting period indicated that the concentrations of Arsenic, Chromium, Copper, Lead, Nickel and Zinc were detected in the samples at most stations and their concentrations of most metals and metalloids were generally similar across stations, except some concentrations recorded at Impact (IPF) station which were comparatively lower than at other stations (**Table B4** of **Appendix B**; **Figure 7** of **Appendix C**).

For nutrients, concentrations of Total Inorganic Nitrogen (TIN) at the Reference (RFF), Impact (IPF) and Intermediate (INF) stations were higher than the WQO (0.5 mg/L) (**Table B4** of **Appendix B**; **Figure 8** of **Appendix C**). It should be noted that due to the effect of the Pearl River, the North Western WCZ has historically experienced higher levels of TIN.<sup>4</sup> Therefore, the exceedances of TIN WQO at these stations are unlikely to be caused by the disposal operation at ESC CMPs. The concentrations of Ammonia Nitrogen (NH<sub>3</sub>-N) and Biochemical Oxygen Demand (BOD<sub>5</sub>) were slightly higher at Ma Wan station in the reporting month (**Table B4** of **Appendix B**; **Figure 8 and 9** of **Appendix C**).

Analyses of results for the reporting period indicated that most of the SS levels at all stations complied with the wet season WQO (11.8 mg/L) and the Action and Limit Levels, except the SS level at Impact (IPF) station (**Tables B1 and B4** of **Appendix B**; **Figure 10** of **Appendix C**).

Overall, results of the Routine Water Quality Monitoring indicated that the disposal and capping operation at ESC CMPs did not appear to cause any unacceptable deterioration in water quality during the reporting period. Detailed statistical analysis will be presented in the Quarterly EM&A Report to investigate any spatial and temporal trends of potential concern.

### 2.4 Pit Specific Sediment Chemistry of ESC CMP Vb – in June 2021

Monitoring locations for Pit Specific Sediment Chemistry for ESC CMP Vb are shown in **Figure 2.2**. A total of six (6) monitoring stations were sampled on 1 June 2021.

The concentrations of all inorganic contaminants were lower than the Lower Chemical Exceedance Levels (LCELs) at all stations (**Figures 11 and 12** of **Appendix C**).

For organic contaminants, the concentrations of Total Organic Carbon (TOC) were higher at Pit-Edge stations ESC-NECA and ESC-NECB and Active-Pit stations ESC-NPCA and ESC-NPCB during the reporting period (**Figure 13** of **Appendix C**). The concentrations of Low Molecular Weight and High Molecular Weight Polycyclic Aromatic Hydrocarbons (PAHs) were lower than

<sup>4</sup> http://www.epd.gov.hk/epd/misc/marine quality/1986-2005/textonly/eng/index.htm

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the LECLs at all stations (**Figure 14** of **Appendix C**). The concentrations of Tributyltin (TBT) were higher at Near-Pit station ESC-NNCA and Active-Pit station ESC-NPCB (**Figure 15** of **Appendix C**). The concentrations of Total Polychlorinated Biphenyls (PCBs), Total dichloro-diphenyl-trichloroethane (DDT) and 4,4'-dichlorodiphenyldichloroethylene (DDE) were below the limit of reporting at all stations during the reporting period.

Overall, there is no evidence indicating any unacceptable environmental impacts to sediment quality outside the pit area as a result of the contaminated mud disposal operations at ESC CMP Vb during the reporting period.

Statistical analysis will be undertaken and presented in the corresponding Quarterly EM&A Report to investigate whether there are any unacceptable impacts in the area caused by the contaminated mud disposal.

# 2.5 Cumulative Impact Sediment Chemistry of ESC CMPs – in June 2021

Monitoring locations for Cumulative Impact Sediment Chemistry for ESC CMPs are shown in **Figure 2.3**. A total of nine (9) monitoring stations were sampled on 3 June 2021.

Analyses of results for the Cumulative Impact Sediment Chemistry Monitoring indicated that the concentrations of all inorganic contaminants were below the LCEL at all stations during the reporting period (**Figures 16 and 17** of **Appendix C**).

For organic contaminants, the concentrations of TOC varied between stations during the reporting period, with generally higher concentrations of TOC recorded at Mid-field stations ESC-RMA and ESC-RMB, Capped station ESC-RCA1 and Ma Wan station (**Figure 18** of **Appendix C**). The concentrations of Low and High Molecular Weight PAHs were below the LCEL at all stations (**Figure 19** of **Appendix C**). The concentrations of TBT were below the limit of reporting at all stations, except at Ma Wan station where higher concentrations were recorded (**Figure 20** of **Appendix C**). The concentrations of Total PCBs, Total DDT, 4,4'-DDE and Low Molecular Weight PAHs were below the limit of reporting at all stations during the reporting period.

Overall, there is no evidence indicating any unacceptable environmental impacts to sediment quality as a result of the contaminated mud disposal operations at ESC CMP Vb during the reporting period. Statistical analysis will be undertaken and presented in the corresponding Quarterly EM&A Report to investigate whether there are any unacceptable impacts in the area caused by the contaminated mud disposal.

# 3 Future Key Issues

# 3.1 Activities Scheduled for the Next Reporting Period

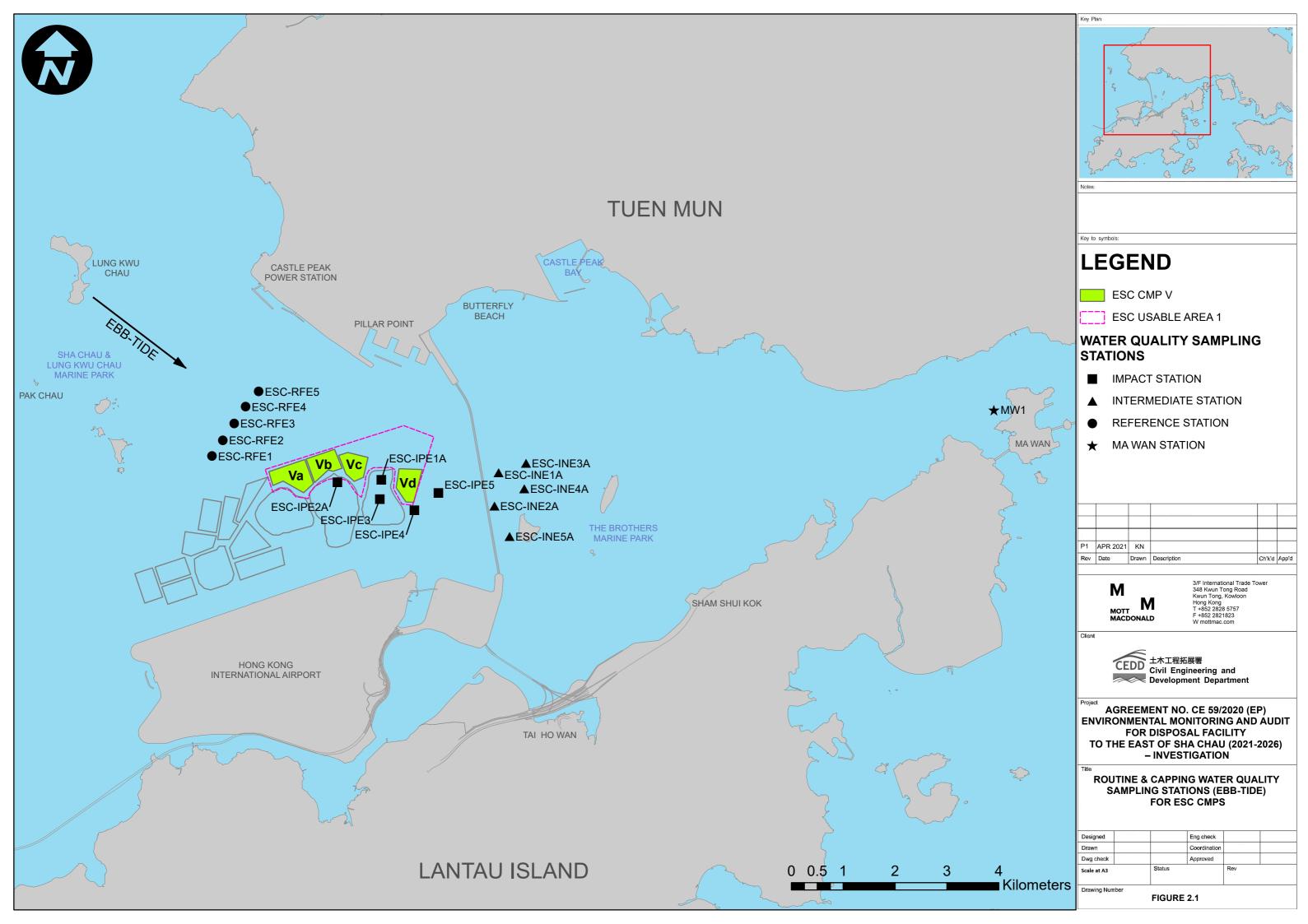
The following monitoring activities will be conducted in the next reporting period of July 2021 for ESC CMP V (see **Appendix A** for the sampling schedule):

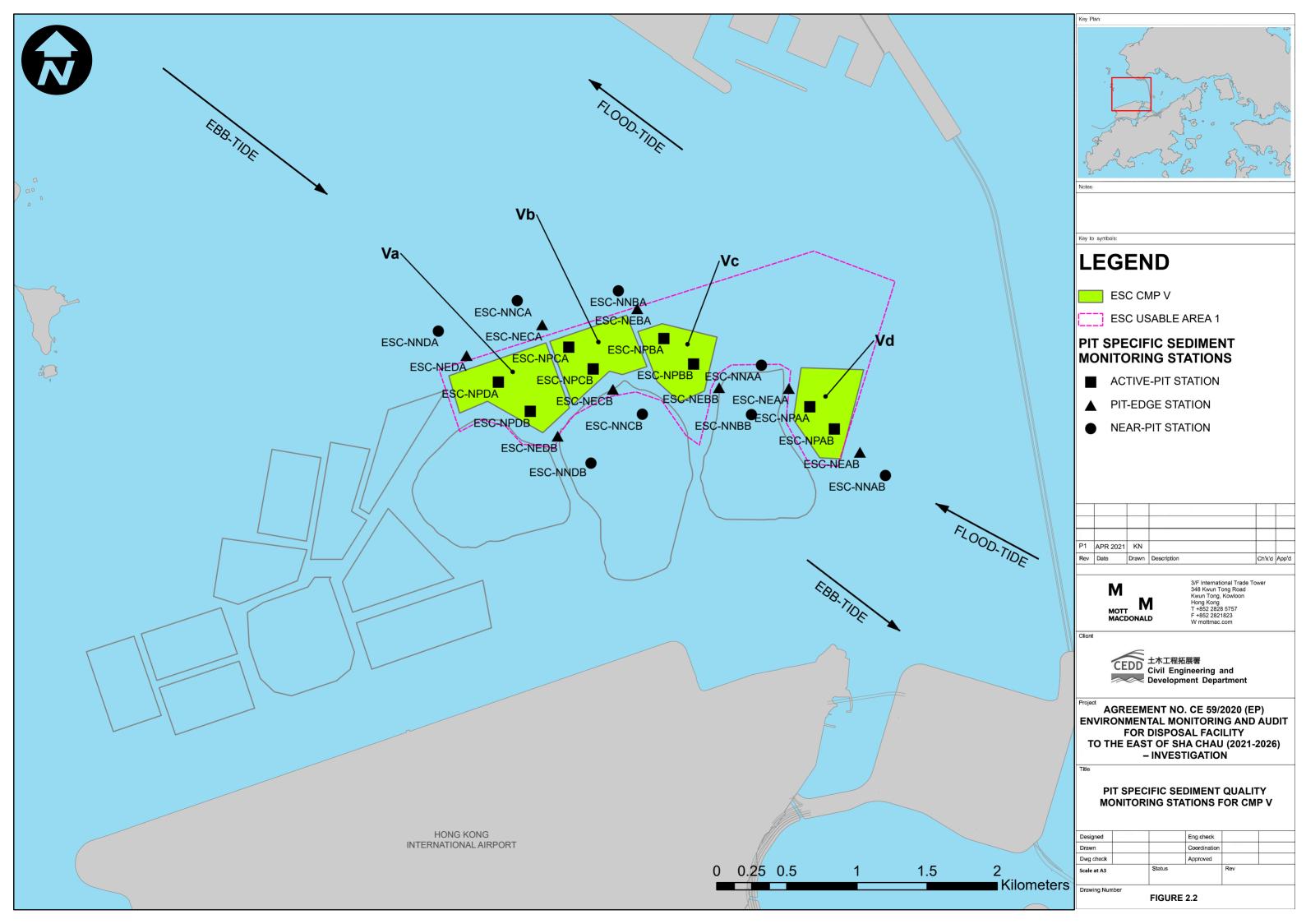
- Water Column Profiling of ESC CMP Vb;
- Routine Water Quality Monitoring of ESC CMPs;
- Pit Specific Sediment Chemistry of ESC CMP Vb; and
- Demersal Trawling for ESC CMPs.

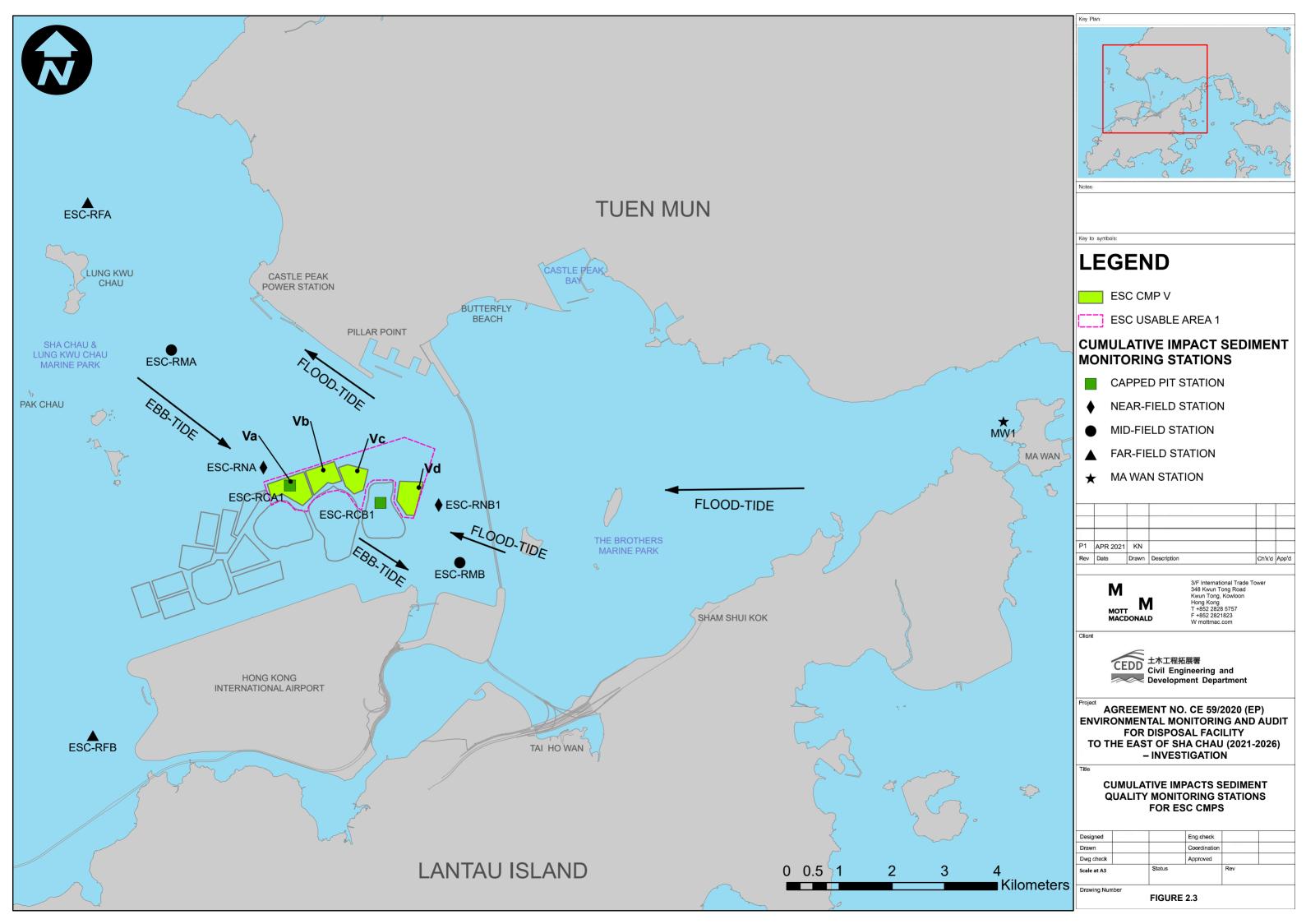
# 3.2 Study Programme

A summary of the Study Programme is presented in **Appendix D**.

# **Figures**







# **Appendices**

- A. Sampling Schedule
- B. Water Quality Monitoring Results
- C. **Graphical Presentations**
- D. Study Programme

# A. Sampling Schedule

# East of Sha Chau CMPs **Environmental Monitoring and Audit Sampling Schedule** (January 2021 - March 2026)

Parameter / Station Type	Station ID	Frequency	2021				2022		2023			2024			202			2026
Pit Specific Sediment Ch Active-Pit	emistry * ESC-NPAA	Monthly	Jan Feb Mar Ap			Sep         Oct         Nov         Dec           6         6         6         6         6			Oct Nov Dec Jan Fe			Dec Jan Feb Mar Ap		Aug   Sep   Oct   No			Jun Jul Aug Se	Oct Nov Dec Jan Fe
Pit-Edge	ESC-NPAB	Monthly	6 6 6 6			6 6 6 6	6 6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6 6	6 6 6 6 6	6 6 6	6 6 6 6	6 6 6	6 6 6 6	6 6 6 6	6 6 6 6 6
Near-Pit	ESC-NEAA ESC-NEAB	Monthly Monthly	6 6 6 6 6 6 6 6	6 6	6 6	6 6 6 6 6 6 6 6	6 6 6 6 6		6 6 6 6 6					6 6 6 6		6     6     6     6       6     6     6     6	6 6 6 6 6 6 6 6	6 6 6 6 6
incui i it	ESC-NNAA ESC-NNAB	Monthly Monthly	6 6 6 6 6 6 6 6			6 6 6 6 6 6 6 6				6 6 6 6		6 6 6 6 6		6 6 6 6 6 6 6 6				6 6 6 6 6
Cumulative Impact Sedin	nent Chemistry	*	Jan Feb Mar Ap	or May Jun	Jul Aug S	Sep   Oct   Nov   Dec	Jan   Feb   Mar   Apr   May	/ Jun Jul Aug Ser	Oct Nov Dec Jan Fe	o Mar Apr May Jun .	ul  Aug Sep Oct Nov	Dec Jan Feb Mar Ap	r May Jun Jul	Aug Sep Oct No	ov Dec Jan	Feb Mar Apr May	Jun Jul Aug Se	Oct Nov Dec Jan Fe
Near-Heid Stations	ESC-RNA ESC-RNB1	4 times per year 4 times per year	6	6		6	6 6	6 6	6 6		6 6	6 6 6	6 6	6 6	6 6	6	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	6 6
Mid-field Stations	ESC-RMA ESC-RMB	4 times per year	6 6	6	6	6	6 6	6 6	6 6		6 6	6 6	6	6	6	6 6	6 6	6 6
Capped Pit Stations	ESC-RIVIB	4 times per year 4 times per year	6	6	6		6   1	6 6				6 6		6	6	6	6 6	
Far-field Stations	ESC-RCA2	4 times per year	6	6		6	6	6 6	6 6	6	6	6 6		6	6	6	6 6	6 6
Ma Wan Station	ESC-RFA ESC-RFB	4 times per year 4 times per year	6	6		6	6 6	6 6	6 6		6 6	6 6 6	6 6	6	6	6	6 6 6	6 6
	MW1	4 times per year	6	6		6		6 6	6 6	6	6	6 6		6	6	6	6 6	6 6
Sediment Toxicity Tests Near-pit Stations	ESC-TDA	2 times per year	Jan Feb Mar Ap	or May Jun	Jul Aug 5	Sep   Oct   Nov   Dec	Jan Feb Mar Apr May	/ Jun Jul Aug Ser	Oct Nov Dec Jan Fe		ul  Aug Sep Oct Nov	Dec Jan Feb Mar Ap	r   May   Jun   Jul  .	Aug Sep Oct No	ov Dec Jan	Feb Mar Apr May 5	Jun   Jul   Aug   Se	O Oct Nov Dec Jan Fe
Reference Stations	ESC-TDB1	2 times per year	5		5		5 5	5	5	<del>                                     </del>	5 5	5 5		5		5	5	5
Ma Wan Station	ESC-TRA ESC-TRB	2 times per year 2 times per year	5 5		5 5		5 5	5 5			5 5	5 5		5		5 5	5 5	5
INIA WAIT Station	MW1	2 times per year	5		5		5	5			5	5		5		5	5	5
Tissue / Whole Body San Near-pit Stations	npling ESC-INA	2 times per year	Jan Feb Mar Ap	or May Jun	Jul Aug :	Sep Oct Nov Dec	Jan Feb Mar Apr May	/ Jun Jul Aug Ser	Oct Nov Dec Jan Fe	o Mar Apr May Jun .	ul Aug Sep Oct Nov	Dec Jan Feb Mar Ap	r May Jun Jul	Aug Sep Oct No	ov Dec Jan	Feb Mar Apr May	Jun Jul Aug Se	Oct Nov Dec Jan Fe
Reference North	ESC-INB	2 times per year 2 times per year	*		*		*	*	,		*	*		*		*	*	*
	TNA TNB	2 times per year 2 times per year	*		*		* *	*	9		* *	*		*		* *	*	*
Reference South	TSA TSB	2 times per year 2 times per year	* *		*		* *	* *	9		* * *	* *		* *		* *	* *	*
Demersal Trawling		20 poi, your	Jan Feb Mar Ap	or May Jun	Jul Aug S	Sep   Oct   Nov   Dec	Jan Feb Mar Apr May	/ Jun Jul Aug Ser	Oct Nov Dec Jan Fe	o Mar Apr May Jun	ul Aug Sep Oct Nov	Dec Jan Feb Mar Ap	r May Jun Jul	Aug Sep Oct No	ov Dec Jan	Feb Mar Apr May	Jun Jul Aug Se	Oct Nov Dec Jan Fe
Near-pit Stations	ESC-INA ESC-INB	4 times per year 4 times per year	5 5 5 5		5 5 5 5		5 5 5	5 5	5 5		5 5 5	5 5	5 5	5 5	5 5	5 5	5 5	5 5
Reference North	TNA	4 times per year	5   5		5 5		5 5	5 5	5 5		5   5	5 5	5	5	5	5	5 5	5 5
Reference South	TNB	4 times per year	5 5		5 5		5 5	5 5	5 5		5 5	5 5	5	5	5	5	5 5	5 5
	TSA TSB	4 times per year 4 times per year	5 5 5		5 5 5 5		5 5	5 5	5 5		5 5 5	5 5 5	5 5	5	5	5	5 5	5 5
Capping * Ebb Tide			Jan Feb Mar Ap	or May Jun	Jul Aug S	Sep   Oct   Nov   Dec	Jan   Feb   Mar   Apr   May	/ Jun Jul Aug Sep	Oct Nov Dec Jan Fe	o Mar Apr May Jun .	ul  Aug Sep Oct Nov	Dec Jan Feb Mar Ap	r May Jun Jul	Aug Sep Oct No	ov Dec Jan	Feb Mar Apr May	Jun Jul Aug Se	O Oct Nov Dec Jan Fe
Impact Station Downcurr	ESC-IPE1A	4 times per year * 4 times per year *																
	ESC-IPE3 ESC-IPE4	4 times per year * 4 times per year *																
Intermediate Station Dow		4 times per year *																
	ESC-INE1A ESC-INE2A ESC-INE3A	4 times per year * 4 times per year * 4 times per year *																
	ESC-INE4A ESC-INE5A	4 times per year * 4 times per year *																
Reference Station Upcur	rent ESC-RFE1 ESC-RFE2	4 times per year * 4 times per year *																
	ESC-RFE3 ESC-RFE4	4 times per year * 4 times per year *																
Ma Wan Station	ESC-RFE5 MW1	4 times per year * 4 times per year *																
Flood Tide	IVIVV I	4 times per year		1 1														
Impact Station Downcurr	ent ESC-IPF1 ESC-IPF2	4 times per year * 4 times per year *																
	E30-1772																	
Intermediate Station Dow	ESC-IPF3 vncurrent	4 times per year *																
Intermediate Station Dow	vncurrent ESC-INF1 ESC-INF2	4 times per year * 4 times per year *																
Intermediate Station Dow	vncurrent ESC-INF1 ESC-INF2 ESC-INF3 rent	4 times per year * 4 times per year * 4 times per year *																
Reference Station Upcur	vncurrent ESC-INF1 ESC-INF2 ESC-INF3 rent ESC-RFF1A	4 times per year *																
	esc-INF1 ESC-INF2 ESC-INF3 rent ESC-RFF1A ESC-RFF2A	4 times per year *																
Reference Station Upcur  Ma Wan Station  Routine Water Quality Mo  Ebb Tide	rent ESC-INF1 ESC-INF2 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3 MW1	4 times per year *	Jan Feb Mar Ap	or May Jun	Jul Aug S	Sep Oct Nov Dec	Jan Feb Mar Apr May	/ Jun Jul Aug Seg	Oct Nov Dec Jan Fe	Mar Apr May Jun	ul Aug Sep Oct Nov	Dec Jan Feb Mar Ap	r May Jun Jul	Aug Sep Oct No	ov Dec Jan	Feb Mar Apr May	Jun Jul Aug Se	O Oct Nov Dec Jan Fe
Reference Station Upcure  Ma Wan Station  Routine Water Quality Ma	rent ESC-INF1 ESC-INF2 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  rent ESC-IPE1A	4 times per year *	Jan Feb Mar Ap	or May Jun		Sep Oct Nov Dec	4 4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4	4   4   4   4   4	4 4 4 4 4	4 4 4	4 4 4 4	4 4 4	4 4 4 4	4 4 4 4	4 4 4 4 4
Reference Station Upcur  Ma Wan Station  Routine Water Quality Mo  Ebb Tide	rent ESC-INF1 ESC-INF2 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3 MW1  conitoring *	4 times per year *	Jan Feb Mar Ap	4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4			4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4		4	4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4	4 4 4 4 4 4 4 4 4	4 4 4 4	1 4 4 1 4 4 1 4 4		4 4 4 4 4 4 4 4 4 4 4 4	
Reference Station Upcur  Ma Wan Station  Routine Water Quality Mo  Ebb Tide	rent ESC-INF1 ESC-INF2 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring * rent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5 vncurrent	4 times per year *  Monthly* Monthly* Monthly* Monthly* Monthly* Monthly*	4 4	4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4	4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4	4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4	4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4	4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4	4	4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4	4     4     4       4     4     4       4     4     4       4     4     4       4     4     4       4     4     4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1 4 4 1 4 4 1 4 4 1 4 4 1 4 4 1 4 4	4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4
Reference Station Upcur Ma Wan Station  Routine Water Quality Mo Ebb Tide Impact Station Downcurr	rent ESC-INF1 ESC-INF2 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  rent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5	4 times per year *  Monthly* Monthly* Monthly* Monthly*	4 4 4	4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4	4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4     4       4     4     4     4     4     4     4       4     4     4     4     4     4     4       4     4     4     4     4     4     4	4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4	4 4 4 4 4 4 4 4 4 4 4 4	4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4     4       4     4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4	4     4     4       4     4     4       4     4     4       4     4     4       4     4     4       4     4     4       4     4     4       4     4     4	4 4 4 4 4 4 4 4 4 4 4 4 4	1 4 4 1 4 4 1 4 4 1 4 4 1 4 4 1 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4
Reference Station Upcur  Ma Wan Station  Routine Water Quality Ma  Ebb Tide  Impact Station Downcurr  Intermediate Station Dow	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  cent ESC-IPE1A ESC-IPE2A ESC-IPE4 ESC-IPE5 vncurrent ESC-INE1A ESC-INE2A ESC-INE2A ESC-INE3A ESC-INE4A ESC-INE5A	4 times per year *  Monthly* Monthly* Monthly* Monthly* Monthly* Monthly* Monthly* Monthly*	4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4	4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4     4       4     4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4	4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4
Reference Station Upcur  Ma Wan Station  Routine Water Quality Ma  Ebb Tide  Impact Station Downcurr  Intermediate Station Dow	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  cent ESC-IPE1A ESC-IPE2A ESC-IPE4 ESC-IPE5 vncurrent ESC-INE1A ESC-INE2A ESC-INE2A ESC-INE3A ESC-INE4A ESC-INE5A	4 times per year *  Monthly*	4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4	4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4	4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4	4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4       4     4     4     4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4       4     4     4     4     4     4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4       4     4     4     4     4
Reference Station Upcur  Ma Wan Station  Routine Water Quality Ma  Ebb Tide  Impact Station Downcurr  Intermediate Station Dow	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  rent ESC-IPE1A ESC-IPE2A ESC-IPE2A ESC-IPE4 ESC-IPE5 vncurrent ESC-INE1A ESC-INE2A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE3 ESC-RFE3	4 times per year *  4 times per year *  Monthly*	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4     4 <th>4       4</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>4       4</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>1</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>4       4</th>	4       4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4       4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4       4
Reference Station Upcure  Ma Wan Station  Routine Water Quality Mo  Ebb Tide  Impact Station Downcure	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  rent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5 vncurrent ESC-INE1A ESC-INE2A ESC-INE2A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE3	4 times per year *  4 times per year *  Monthly*	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4 <th>4       4</th> <th>4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4<th>4</th><th>4       4</th><th>4       4       4         4       4       4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>1</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4       4</th></th>	4       4	4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4 <th>4</th> <th>4       4</th> <th>4       4       4         4       4       4</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>1</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>4       4</th>	4	4       4	4       4       4         4       4       4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4       4
Reference Station Upcur  Ma Wan Station  Routine Water Quality Mo  Ebb Tide Impact Station Downcurr  Intermediate Station Dow  Reference Station Upcur  Ma Wan Station  Flood Tide	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  cent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5 vncurrent ESC-INE1A ESC-INE2A ESC-INE2A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE5  MW1	4 times per year *  4 times per year *  Monthly*	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4 <th>4       4</th> <th>4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4<th>4</th><th>4       4</th><th>4       4       4         4       4       4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>1</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4       4</th></th>	4       4	4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4 <th>4</th> <th>4       4</th> <th>4       4       4         4       4       4</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>1</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>4       4</th>	4	4       4	4       4       4         4       4       4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4       4
Reference Station Upcur  Ma Wan Station  Routine Water Quality Mc  Ebb Tide Impact Station Downcurr  Intermediate Station Down  Reference Station Upcur  Ma Wan Station	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  rent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5 vncurrent ESC-INE2A ESC-INE2A ESC-INE3A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE5 MW1	4 times per year *  Monthly*	4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4       4	4       4	4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4 <th>4</th> <th>4       4</th> <th>4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>1</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>4       4</th>	4	4       4	4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4         4       4       4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4       4
Reference Station Upcur  Ma Wan Station  Routine Water Quality Mo  Ebb Tide Impact Station Downcurr  Intermediate Station Down  Reference Station Upcur  Ma Wan Station  Flood Tide Impact Station Downcurr	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  rent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5 vncurrent ESC-INE1A ESC-INE2A ESC-INE2A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE3 ESC-RFE3 ESC-RFE4 ESC-RFE5  MW1	4 times per year *  Monthly*	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4       4       4         4       4       4 <th>4       4</th> <th>4       4</th> <th>4</th> <th>4       4</th> <th>4       4       4         4       4       4</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>1</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th> <th>4       4</th>	4       4	4       4	4	4       4	4       4       4         4       4       4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4       4
Reference Station Upcur  Ma Wan Station  Routine Water Quality Mo Ebb Tide Impact Station Downcurr  Intermediate Station Down  Reference Station Upcur  Ma Wan Station  Flood Tide Impact Station Downcurr	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  cent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5 vncurrent ESC-INE1A ESC-INE2A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE5  MW1  cent ESC-RFE3 ESC-RFE4 ESC-RFE5  MW1	4 times per year *  4 times per year *  Monthly*	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4         4 <td< th=""><th>4       4</th><th>4</th><th>4       4</th><th>4       4       4         4       4       4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>1</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4       4</th></td<>	4       4	4	4       4	4       4       4         4       4       4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4       4
Reference Station Upcur  Ma Wan Station  Routine Water Quality Mo  Ebb Tide Impact Station Downcurr  Intermediate Station Upcur  Ma Wan Station  Flood Tide Impact Station Downcurr  Intermediate Station Downcurr	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  rent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5 vncurrent ESC-INE2A ESC-INE3A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE5  MW1  rent ESC-RFE3 ESC-RFE4 ESC-RFE5  MW1  rent ESC-IPF1 ESC-IPF2 ESC-IPF3 vncurrent ESC-INF1 ESC-INF2 ESC-INF3 rent	4 times per year *  Monthly*	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4       4	4         4 <td< th=""><th>4</th><th>4       4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>1</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4       4</th></td<>	4	4       4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4       4
Reference Station Upcur  Ma Wan Station  Routine Water Quality Mo Ebb Tide Impact Station Downcurr  Intermediate Station Upcur  Ma Wan Station  Flood Tide Impact Station Downcurr  Intermediate Station Downcurr  Intermediate Station Downcurr	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  rent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5 vncurrent ESC-INE1A ESC-INE2A ESC-INE2A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE3 ESC-RFE3 ESC-RFE3 ESC-RFE4 ESC-RFE5  MW1  rent ESC-IPF1 ESC-IPF1 ESC-IPF2 ESC-IPF3 vncurrent ESC-INF1 ESC-INF2 ESC-INF3	4 times per year *  Monthly*	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4       4	4         4 <td< th=""><th>4         <td< th=""><th>4</th><th>4         4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>1</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4         <td< th=""></td<></th></td<></th></td<>	4         4 <td< th=""><th>4</th><th>4         4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>1</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4         <td< th=""></td<></th></td<>	4	4         4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4         4 <td< th=""></td<>
Reference Station Upcur  Ma Wan Station  Routine Water Quality Mo  Ebb Tide Impact Station Downcurr  Intermediate Station Upcur  Ma Wan Station  Flood Tide Impact Station Downcurr  Intermediate Station Downcurr	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  cent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5 vncurrent ESC-INE1A ESC-INE2A ESC-INE3A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE3 ESC-RFE4 ESC-RFE5  MW1  cent ESC-IPF1 ESC-IPF2 ESC-IPF1 ESC-IPF2 ESC-IPF3 vncurrent ESC-INF1 ESC-INF1 ESC-INF2 ESC-INF3 rent ESC-RFF1A ESC-RFF1A	4 times per year *  Monthly* Mon	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4       4	4         4 <td< th=""><th>4</th><th>4         4</th><th>4       4       4         4       4       4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>1</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</th><th>4         <td< th=""></td<></th></td<>	4	4         4	4       4       4         4       4       4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4         4 <td< th=""></td<>
Reference Station Upcuring Ma Wan Station  Routine Water Quality More Ebb Tide Impact Station Downcurry  Intermediate Station Upcuring Ma Wan Station  Flood Tide Impact Station Downcurry  Intermediate Station Downcurry  Intermediate Station Downcurry  Reference Station Downcurry  Ma Wan Station  Water Column Profiling *	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  cent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE5 vncurrent ESC-INE3A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE4 ESC-RFE5  MW1  cent ESC-RFE5  MW1  cent ESC-RFE3 ESC-RFE3 ESC-RFE3 ESC-RFE4 ESC-RFE5  MW1  cent ESC-INF1 ESC-INF1 ESC-INF2 ESC-INF3 vncurrent ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1	4 times per year *  Monthly*	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4	A	4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Reference Station Upcuring Ma Wan Station  Routine Water Quality More Ebb Tide Impact Station Downcurry  Intermediate Station Upcuring Ma Wan Station  Flood Tide Impact Station Downcurry  Intermediate Station Downcurry  Reference Station Downcurry  Intermediate Station Downcurry  Ma Wan Station  Water Column Profiling *	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  rent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5 vncurrent ESC-INE1A ESC-INE2A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE5  MW1  rent ESC-RFE5  MW1  rent ESC-IPF1 ESC-IPF2 ESC-IPF3 vncurrent ESC-INF3 rent ESC-INF3 rent ESC-RFF1A ESC-INF3 rent ESC-RFF1A ESC-RFF3 MW1	4 times per year *  Monthly* Mon	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Reference Station Upcuring  Routine Water Quality More Ebb Tide Impact Station Downcurr  Intermediate Station Upcuring  Ma Wan Station  Flood Tide Impact Station Downcurr  Intermediate Station Downcurr  Intermediate Station Downcurr  Intermediate Station Downcurr  Ma Wan Station  Water Column Profiling * Plume Stations	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  rent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5 vncurrent ESC-INE2A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE4 ESC-RFE5  MW1  rent ESC-IPF1 ESC-RFE5  MW1  rent ESC-IPF1 ESC-IPF2 ESC-IPF3 vncurrent ESC-INF3 rent ESC-INF3 rent ESC-INF3 rent ESC-INF3 rent ESC-RFF1A ESC-INF3 rent ESC-RFF1A ESC-RFF3 MW1	4 times per year *  Monthly* Mon	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Reference Station Upcuring  Routine Water Quality More Ebb Tide Impact Station Downcurry  Intermediate Station Upcuring  Ma Wan Station  Flood Tide Impact Station Downcurry  Intermediate Station Downcurry  Intermediate Station Downcurry  Reference Station Upcuring  Ma Wan Station  Water Column Profiling * Plume Stations	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  Donitoring *  rent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE5 vncurrent ESC-INE3A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE3 ESC-RFE4 ESC-RFE5  MW1  rent ESC-INF1 ESC-INF1 ESC-INF2 ESC-IPF2 ESC-IPF3 vncurrent ESC-INF3 rent ESC-INF3 rent ESC-INF3 rent ESC-RFF1A ESC-INF3 rent ESC-RFF1A ESC-INF3 rent ESC-RFF1A ESC-RFF3  MW1	4 times per year *  4 times per year *  Monthly* M	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Reference Station Upcuring Ma Wan Station  Routine Water Quality Modebb Tide Impact Station Downcurr  Intermediate Station Upcuring Ma Wan Station  Flood Tide Impact Station Downcurr  Intermediate Station Downcurr  Intermediate Station Downcurr  Ma Wan Station  Reference Station Upcuring Ma Wan Station  Water Column Profiling * Plume Stations	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  cent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE5 vncurrent ESC-INE3A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE3 ESC-RFE4 ESC-RFE5  MW1  cent ESC-IPF1 ESC-IPF2 ESC-IPF3 vncurrent ESC-INF1 ESC-INF3 rent ESC-INF3 rent ESC-RFF1A ESC-INF3 rent ESC-RFF1A ESC-RFF3  MW1	4 times per year *  4 times per year *  Monthly* M	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Reference Station Upcure  Routine Water Quality Mo Ebb Tide Impact Station Downcurr  Intermediate Station Upcure  Ma Wan Station  Flood Tide Impact Station Downcurr  Intermediate Station Downcurr  Intermediate Station Downcurr  Intermediate Station Upcure  Ma Wan Station  Water Column Profiling * Plume Stations  Benthic Recoloinisation Capped Stations at CMP	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  rent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5 vncurrent ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE4 ESC-RFE5  MW1  cent ESC-IPF1 ESC-IPF2 ESC-IPF3 vncurrent ESC-INF1 ESC-IPF2 ESC-INF3 rent ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  VCP1 WCP2  Studies V ESCV-CPA ESCV-CPB ESCV-CPD RBA RBB	4 times per year *  4 times per year *  Monthly* M	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Reference Station Upcuring  Routine Water Quality More Ebb Tide Impact Station Downcurr  Intermediate Station Upcuring  Ma Wan Station  Flood Tide Impact Station Downcurr  Intermediate Station Downcurr  Intermediate Station Downcurr  Ma Wan Station  Reference Station Upcuring  Ma Wan Station  Water Column Profiling * Plume Stations  Benthic Recoloinisation Capped Stations at CMP	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  cent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5 vncurrent ESC-INE1A ESC-INE2A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE4 ESC-RFE5  MW1  cent ESC-IPF1 ESC-IPF2 ESC-IPF3 vncurrent ESC-INF1 ESC-INF2 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3 vncurrent ESC-RFF1A ESC-RFF3 vncurrent ESC-RFF1A ESC-RFF3 vncurrent ESC-RFF1A ESC-RFF3 vncurrent ESC-RFF1A ESC-RF1A ESC-RFF1A ES	4 times per year *  4 times per year *  Monthly* M		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Reference Station Upcuring  Routine Water Quality More Ebb Tide Impact Station Downcurr  Intermediate Station Upcuring  Ma Wan Station  Flood Tide Impact Station Downcurr  Intermediate Station Downcurr  Intermediate Station Downcurr  Intermediate Station Downcurr  Ma Wan Station  Water Column Profiling * Plume Stations	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  Donitoring *  rent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5 vncurrent ESC-INE3A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE4 ESC-RFE5  MW1  rent ESC-IPF1 ESC-IPF2 ESC-IPF3 vncurrent ESC-INF1 ESC-INF3 rent ESC-INF3 rent ESC-RFF2A ESC-RFF3  MW1  RESC-INF2 ESC-INF3 rent ESC-RFF3  MW1  RESC-RFF2A ESC-RFF3  MW1  RESC-RFF2A ESC-RFF3  MW1  RESC-RFF2A ESC-RFF3  MW1	4 times per year *  Monthly* Mo		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Reference Station Upcuri  Ma Wan Station  Routine Water Quality Mc Ebb Tide Impact Station Downcurr  Intermediate Station Down  Reference Station Upcuri  Ma Wan Station  Flood Tide Impact Station Downcurr  Intermediate Station Downcurr  Intermediate Station Downcurr  Ma Wan Station  Water Column Profiling * Plume Stations  Benthic Recoloinisation Capped Stations at CMP  Reference Stations	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  cent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE3 ESC-IPE4 ESC-IPE5 vncurrent ESC-INE1A ESC-INE2A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE3 ESC-RFE4 ESC-RFE5  MW1  cent ESC-IPF1 ESC-IPF2 ESC-IPF3 vncurrent ESC-INF1 ESC-INF2 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  Cent ESC-RFF1A ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  Cent ESC-RFF1A ESC-RFF1A ESC-RFF2A ESC-RFF3  CONCURRENT CONCUR	4 times per year *  4 times per year *  Monthly*  Mont		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Reference Station Upcuring Ma Wan Station  Routine Water Quality More Ebb Tide Impact Station Downcurr  Intermediate Station Downcurr  Ma Wan Station  Flood Tide Impact Station Downcurr  Intermediate Station Downcurr  Intermediate Station Downcurr  Ma Wan Station  Water Column Profiling * Plume Stations  Benthic Recoloinisation Capped Stations at CMP  Reference Stations	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  rent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE3 ESC-IPE5 vincurrent ESC-INE1A ESC-INE2A ESC-INE3A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE4 ESC-RFE5  MW1  rent ESC-IPF1 ESC-IPF2 ESC-IPF3 vincurrent ESC-INF1 ESC-INF2 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  VCP1 WCP2  Studies V ESCV-CPA ESCV-CPC ESCV-CPD RBA RBB RBC1  edging  US1 US2  DS1 DS2	4 times per year *  4 times per year *  Monthly*  3 times per year 2 2 times per year 3 2 times per year 3 2 times per year 4 2 times per year 5 2 times per year 5 2 times per year 6 3 times per week 6 3 times per week 6 3 times per week 7 3 times p		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Reference Station Upcuring Ma Wan Station  Routine Water Quality More Ebb Tide Impact Station Downcurr  Intermediate Station Downcurr  Ma Wan Station  Flood Tide Impact Station Downcurr  Intermediate Station Downcurr  Intermediate Station Downcurr  Ma Wan Station  Water Column Profiling * Plume Stations  Benthic Recoloinisation Capped Stations at CMP  Reference Stations	rent ESC-INF1 ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  conitoring *  cent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE3 ESC-IPE4 ESC-IPE5 vncurrent ESC-INE1A ESC-INE3A ESC-INE3A ESC-INE4A ESC-INE5A rent ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE3 ESC-RFE3 ESC-RFE5  MW1  cent ESC-IPF1 ESC-IPF2 ESC-IPF3 vncurrent ESC-INF3 rent ESC-RFF1A ESC-RFF2A ESC-RFF3  MW1  cent ESC-RFF1A ESC-RFF3  vncurrent ESC-RFF1A ESC-RFF3  vncurrent ESC-RFF1A ESC-RFF2A ESC-RFF3  vncurrent ESC-RFF1A ESC-RFF2A ESC-RFF3  vncurrent ESC-RFF1A ESC-RFE5  MW1	4 times per year *  4 times per year *  Monthly*  Mont		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

Notes:

(1) The number shown in each cell represents the numbers of replicates per monitoring station. The number shown in green bolded text represented monitoring works have been conducted before/ during the reporting period of this Monthly EM&A Report, while the number shown in black represent planned monitoring works after the reporting period of this Monthly EM&A Report.

The vearly tidal selection of this monitoring will be conducted at mid-ebb, and 6 months monitoring data at mid-ebb, and 6 months monitoring data at mid-flood.

(2) For the planned Routine Water Quality Monitoring (i.e. the numbers of replicates per monitoring station shown in black), the monitoring will be based on a principle to obtain 6 months monitoring data at mid-ebb, and 6 months monitoring data at mid-ebb, and 6 months monitoring data at mid-ebb, and 6 months monitoring data at mid-flood.

(3) Impact Monitoring for Dredging will be scheduled when dredging operations commence.

(4) Benthic Recolonisation Studies for CMP V will be scheduled when capping operation for CMP V is completed.

<sup>\*</sup> A proposal on the change of number of sample replication of water quality & sediment monitoring and combination of routine water quality monitoring and agreed by EPD on 3 December 2020. The proposed changes have been implemented for the EM&A activities since December 2020. Water Quality Monitoring during Capping Operation and Routine Water Quality Monitoring are combined such that Routine Water Quality Monitoring to Sections 3 and 4, subject to the findings of the further data review.

# **B. Water Quality Monitoring Results**



# Table B1: Action and Limit Levels of Water Quality for Dredging, Disposal and Capping Activities at ESC CMP V

Parameters	Action	Limit				
Dissolved Oxygen (DO)	Surface and Middle Depth <sup>(2)</sup>	Surface and Middle Depth <sup>(2)</sup>				
in mg L <sup>-1</sup> (Surface, Middle & Bottom) <sup>(1)</sup>	5%-ile of baseline data for surface and middle layer = <b>3.76</b>	1%-ile of baseline data for surface and middle layer = <b>3.11</b> <sup>(3)</sup>				
	and	and				
	Significantly less than the reference station's mean DO (at the same tide of the same day)	Significantly less than the reference station's mean DO (at the same tide of the same day)				
	Bottom	Bottom				
	5%-ile of baseline data for surface and middle layer = <b>2.96</b>	The average of the impact station readings are < 2				
	and	and				
	Significantly less than the reference station's mean DO (at the same tide of the same day)	Significantly less than the reference station's mean DO (at the same tide of the same day)				
Suspended Solids (SS) in mg L <sup>-1</sup>	95%-ile of baseline data for depth- averaged = <b>37.88</b>	99%-ile of baseline data for depth- averaged = <b>61.92</b>				
(depth-averaged)(4)(5)	and	and				
	120% of control station's SS at the same tide of the same day	130% of control station's SS at the same tide of the same day				
Turbidity	95%-ile of baseline data = <b>28.14</b>	99%-ile of baseline data = <b>38.32</b>				
in NTU	and	and				
(depth-averaged) <sup>(4)(5)</sup>	120% of control station's Turbidity at the same tide of the same day	130% of control station's Turbidity at the same tide of the same day				

### Notes:

- 1. For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.
- 2. Action and Limit Levels for DO for Surface and Middle layers were calculated from the combined pool of baseline surface layer data and baseline middle layer data.
- 3. Given the Action Level for DO for Surface and Middle layers has already been lower than 4 mg L<sup>-1</sup>, it is proposed to set the Limit Level at 3.11 mg L<sup>-1</sup> which is the first percentile of the baseline data.
- 4. "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths.
- 5. For turbidity and SS, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.



### Table B2: Water Column Profiling Results for ESC CMP Vb in June 2021

Station	Temp.	Salinity	Turbidity	Dissolve	ed Oxygen	рН	<b>Suspended Solids</b>		
	(°C)	(ppt)	(NTU)	(%)	(mg L <sup>-1</sup> )		(mg L <sup>-1</sup> )		
WCP 1 (Downstream)	27.04	25.32	19.15	82.45	5.70	8.01	12.2		
WCP 2	27.24	24.56	12.40	83.18	5.75	8.02	10.1		
(Upstream)									
WQO (Wet Season)	N/A	22.10 – 27.01#	N/A	N/A	>4	6.5 – 8.5	11.8		

### Notes:

- 1. \*Not exceeding 10% of natural ambient level which is the result obtained from the Reference Station.
- 2. Cell shaded yellow / red indicates value exceeding the Action/Limit levels.
- 3. Cell shaded grey indicates value exceeding the WQO.

Table B3: In-situ Monitoring Results for Routine Water Quality Monitoring of ESC CMPs in June 2021

Station	Temp.	Salinity	<b>Turbidity</b>	Dissolve	рН	
	(°C)	(ppt)	(NTU)	(%)	(mg L <sup>-1</sup> )	
RFF (Reference)	27.06	24.30	5.88	98.07	6.82	8.10
IPF (Impact)	27.05	24.33	6.77	94.65	6.58	8.10
INF (Intermediate)	26.60	26.49	4.75	93.87	6.50	8.10
Ma Wan	25.54	30.75	4.53	68.36	4.70	7.98
WQO (Wet Season)	N/A	21.87 – 26.73 #	N/A	N/A	>4	6.5 – 8.5

### Notes:

- 1. \*Not exceeding 10% of natural ambient level which is the result obtained from the Reference Station.
- 2. Cell shaded yellow / red indicates value exceeding the Action/Limit levels.
- 3. Cell shaded grey indicates value exceeding the WQO.

Table B4: Laboratory Results for Routine Water Quality Monitoring of ESC CMPs in June 2021

Station	As	Cd	Cr	Cu	Pb	Hg	Ni	Ag	Zn	$NH_3$	TIN	BOD <sub>5</sub>	SS
	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
RFF	2.97	<lor< td=""><td>0.96</td><td>34.09</td><td>1.23</td><td><lor< td=""><td>0.95</td><td><lor< td=""><td>47.08</td><td>0.07</td><td>0.64</td><td>1.56</td><td>10.5</td></lor<></td></lor<></td></lor<>	0.96	34.09	1.23	<lor< td=""><td>0.95</td><td><lor< td=""><td>47.08</td><td>0.07</td><td>0.64</td><td>1.56</td><td>10.5</td></lor<></td></lor<>	0.95	<lor< td=""><td>47.08</td><td>0.07</td><td>0.64</td><td>1.56</td><td>10.5</td></lor<>	47.08	0.07	0.64	1.56	10.5
IPF	2.21	<lor< td=""><td><lor< td=""><td>20.36</td><td>0.81</td><td><lor< td=""><td><lor< td=""><td><lor< td=""><td>31.16</td><td>0.07</td><td>0.60</td><td>1.45</td><td>13.4</td></lor<></td></lor<></td></lor<></td></lor<></td></lor<>	<lor< td=""><td>20.36</td><td>0.81</td><td><lor< td=""><td><lor< td=""><td><lor< td=""><td>31.16</td><td>0.07</td><td>0.60</td><td>1.45</td><td>13.4</td></lor<></td></lor<></td></lor<></td></lor<>	20.36	0.81	<lor< td=""><td><lor< td=""><td><lor< td=""><td>31.16</td><td>0.07</td><td>0.60</td><td>1.45</td><td>13.4</td></lor<></td></lor<></td></lor<>	<lor< td=""><td><lor< td=""><td>31.16</td><td>0.07</td><td>0.60</td><td>1.45</td><td>13.4</td></lor<></td></lor<>	<lor< td=""><td>31.16</td><td>0.07</td><td>0.60</td><td>1.45</td><td>13.4</td></lor<>	31.16	0.07	0.60	1.45	13.4
INF	2.79	<lor< td=""><td>0.84</td><td>32.51</td><td>0.85</td><td><lor< td=""><td>0.81</td><td><lor< td=""><td>40.00</td><td>0.06</td><td>0.52</td><td>1.69</td><td>10.4</td></lor<></td></lor<></td></lor<>	0.84	32.51	0.85	<lor< td=""><td>0.81</td><td><lor< td=""><td>40.00</td><td>0.06</td><td>0.52</td><td>1.69</td><td>10.4</td></lor<></td></lor<>	0.81	<lor< td=""><td>40.00</td><td>0.06</td><td>0.52</td><td>1.69</td><td>10.4</td></lor<>	40.00	0.06	0.52	1.69	10.4
Ma Wan	2.98	<lor< td=""><td>0.80</td><td>11.85</td><td><lor< td=""><td><lor< td=""><td>1.03</td><td><lor< td=""><td>33.93</td><td>0.08</td><td>0.29</td><td>1.78</td><td>11.8</td></lor<></td></lor<></td></lor<></td></lor<>	0.80	11.85	<lor< td=""><td><lor< td=""><td>1.03</td><td><lor< td=""><td>33.93</td><td>0.08</td><td>0.29</td><td>1.78</td><td>11.8</td></lor<></td></lor<></td></lor<>	<lor< td=""><td>1.03</td><td><lor< td=""><td>33.93</td><td>0.08</td><td>0.29</td><td>1.78</td><td>11.8</td></lor<></td></lor<>	1.03	<lor< td=""><td>33.93</td><td>0.08</td><td>0.29</td><td>1.78</td><td>11.8</td></lor<>	33.93	0.08	0.29	1.78	11.8

WQO of TIN: 0.5 mg/L Wet Season WQO of SS: 11.8 mg/L

### Notes:

- 1. "<LOR" indicates the concentrations of metals and metalloids are below the limit of reporting.
- 2. Cell shaded yellow / red indicates value exceeding the Action/Limit levels.
- Cell shaded grey indicates value exceeding the WQO.

# **C.** Graphical Presentations



### Routine Water Quality Monitoring for ESC CMP V - June 2021

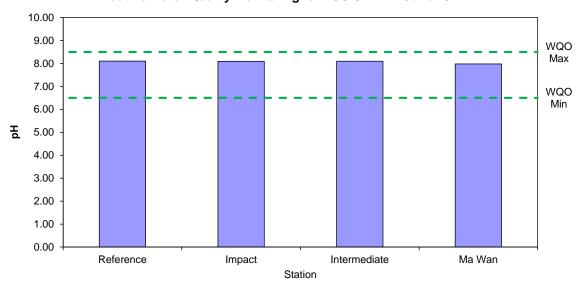


Figure 1: Level of pH recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in June 2021

# Routine Water Quality Monitoring for ESC CMP V - June 2021

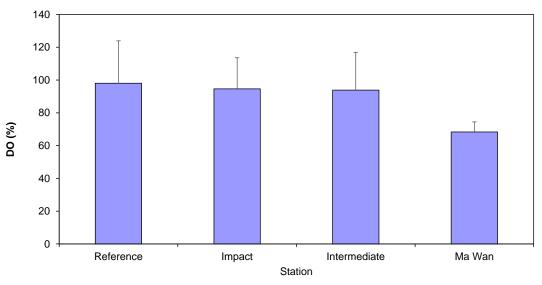


Figure 2: Level of Dissolved Oxygen (DO) (% saturation; mean + SD)<sup>1</sup>recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in June 2021

The mean and standard deviation (SD) for in-situ data are the mean and SD for water columns within the area.

# Routine Water Quality Monitoring for ESC CMP V - June 2021

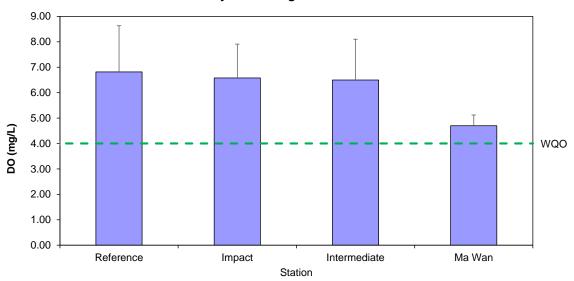


Figure 3: Concentration of Dissolved Oxygen (DO) (mg/L; mean + SD)<sup>1</sup> recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in June 2021

## Routine Water Quality Monitoring for ESC CMP V - June 2021

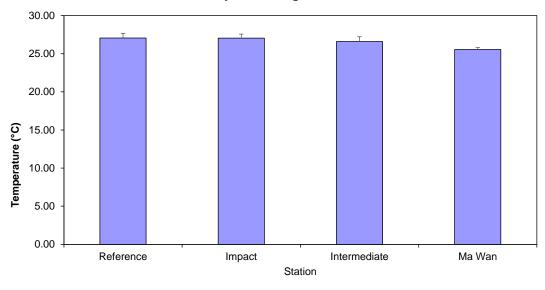


Figure 4: Level of Temperature (°C; mean + SD)¹ recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in June 2021

<sup>1</sup> The mean and standard deviation (SD) for in-situ data are the mean and SD for water columns within the area.

### Routine Water Quality Monitoring for ESC CMP V - June 2021

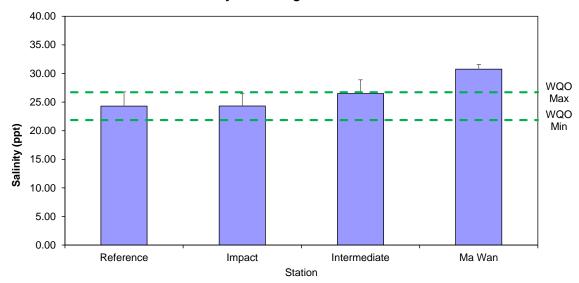


Figure 5: Level of Salinity (ppt; mean + SD)¹ recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in June 2021

# Routine Water Quality Monitoring for ESC CMP V - June 2021

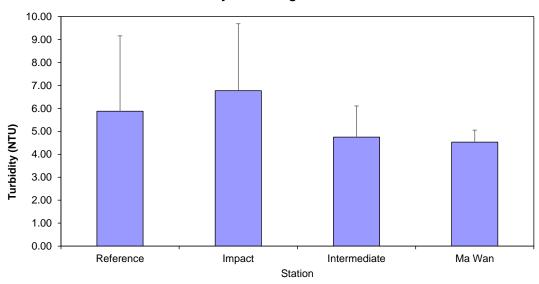


Figure 6: Level of Turbidity (NTU; mean + SD)<sup>1</sup> recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in June 2021

<sup>1</sup> The mean and standard deviation (SD) for in-situ data are the mean and SD for water columns within the area.



# Routine Water Quality Monitoring for ESC CMP V June 2021

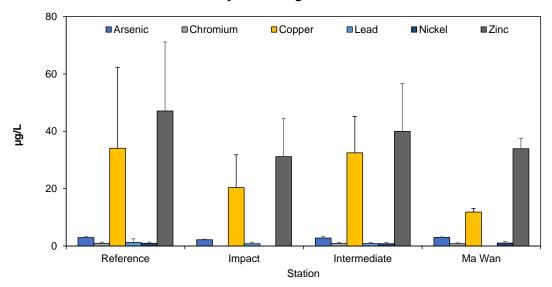


Figure 7: Concentration of Arsenic, Chromium, Copper, Lead, Nickel, and Zinc (µg/L; mean + SD) in water samples collected from Routine Water Quality Monitoring for disposal operations at ESC CMP V in June 2021

# **Routine Water Quality Monitoring for Nutrients - June 2021**

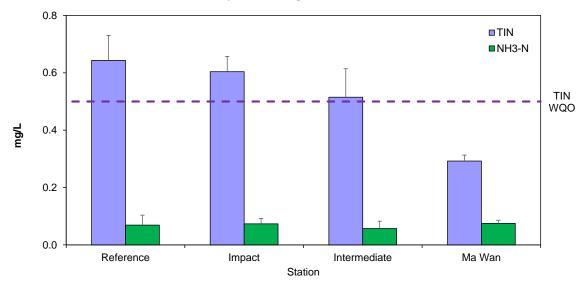


Figure 8: Concentration of Total Inorganic Nitrogen (TIN) and Ammonia Nitrogen (NH3-N) (mg/L; mean + SD) in water samples collected from Routine Water Quality Monitoring for disposal operations at ESC CMP V in June 2021



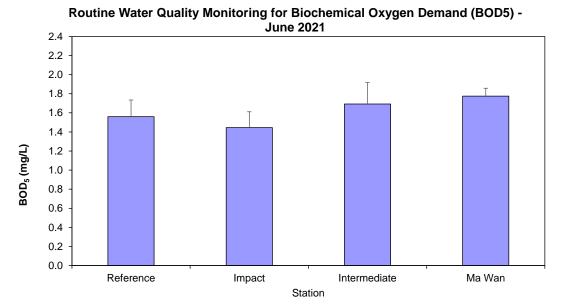


Figure 9: Level of Biochemical Oxygen Demand (BOD5) (mg/L; mean + SD) in water samples collected from Routine Water Quality Monitoring for disposal operations at ESC CMP V in June 2021

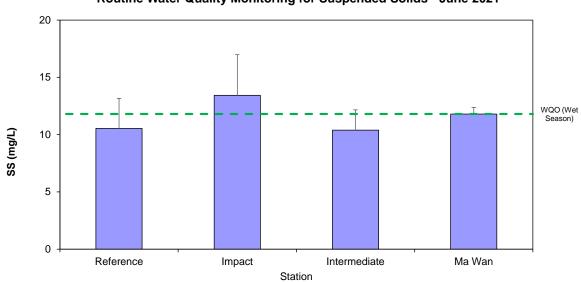


Figure 10: Concentration of Suspended Solids (SS) (mg/L; mean + SD) in water samples collected from Routine Water Quality Monitoring for disposal operations at ESC CMP V in June 2021

# Routine Water Quality Monitoring for Suspended Solids - June 2021

# Pit Specific Sediment Chemistry for Metal and Metalloid Contaminants at ESC CMP Vb - June 2021

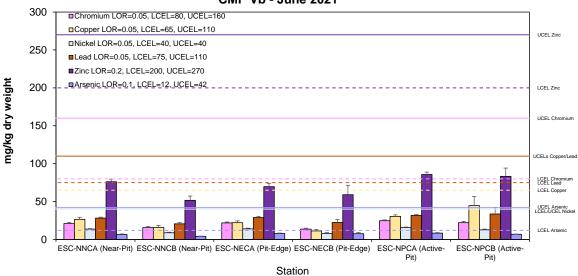


Figure 11: Concentration of Metals and Metalloid (Cr, Cu, Ni, Pb, Zn, As; mg/kg dry weight; mean + SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vb in June 2021

# Pit Specific Sediment Chemistry for Metal Contaminants at ESC CMP Vb - June 2021

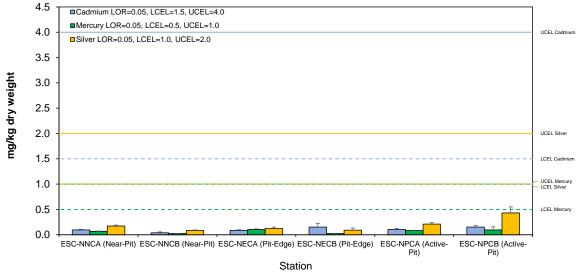


Figure 12: Concentration of Metals (Cd, Hg, Ag; mg/kg dry weight; mean + SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vb in June 2021



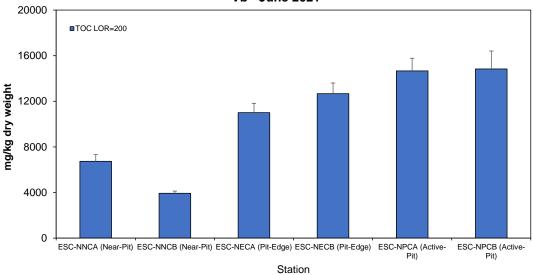


Figure 13: Concentration of Total Organic Carbon (TOC) (mg/kg dry weight; mean + SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vb in June 2021

Pit Specific Sediment Chemistry for Low and High Molecular Weight Polycyclic Aromatics Hydrocarbons (PAHs) at ESC CMP Vb - June 2021

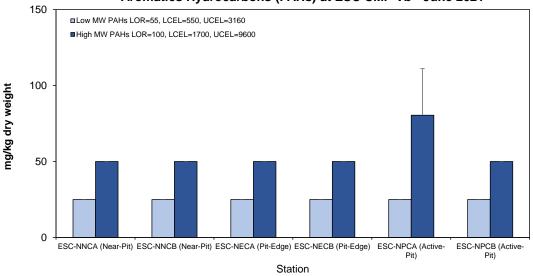


Figure 14: Concentration of Low and High Molecular Weight Polycyclic Aromatic Hydrocarbons (mg/kg dry weight; mean + SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vb in June 2021



# Pit Specific Sediment Chemistry for Tributyltin (TBT) at ESC CMP Vb - June 2021

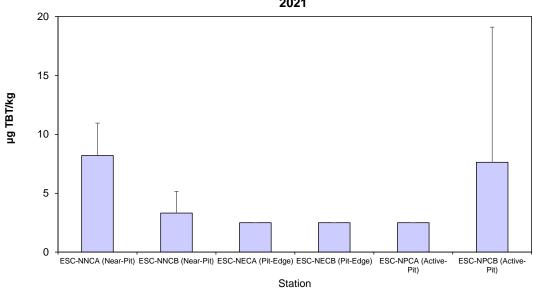


Figure 15: Concentration of Tributyltin (TBT) (μg TBT/kg; mean + SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vb in June 2021

# Cumulative Impact Sediment Chemistry for Metal and Metalloid Contaminants at ESC CMPs - June 2021

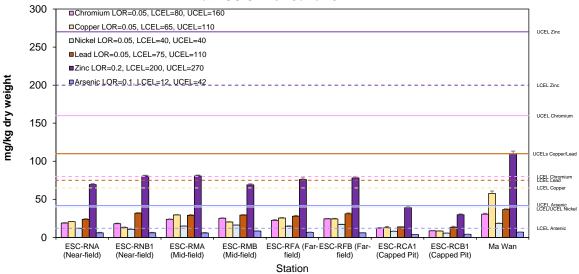


Figure 16: Concentration of Metals and Metalloid (Cr, Cu, Ni, Pb, Zn, As; mg/kg dry weight; mean + SD) in sediment samples collected from Cumulative Impact Sediment Chemistry Monitoring for ESC CMPs in June 2021



# Cumulative Impact Sediment Chemistry for Metal Contaminants at ESC CMPs - June 2021

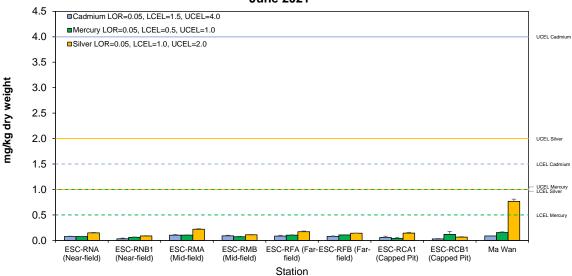


Figure 17: Concentration of Metals (Cd, Hg, Ag; mg/kg dry weight; mean + SD) in sediment samples collected from Cumulative Impact Sediment Chemistry Monitoring for ESC CMPs in June 2021

# Cumulative Impact Sediment Chemistry for Total Organic Carbon (TOC) at ESC CMPs - June 2021

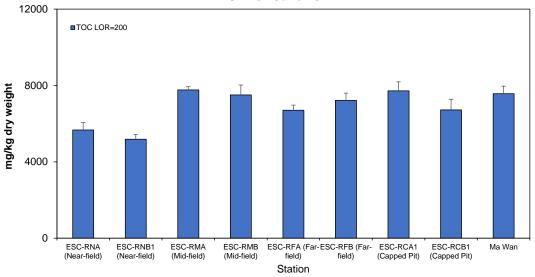


Figure 18: Concentration of Total Organic Carbon (TOC) (mg/kg dry weight; mean + SD) in sediment samples collected from Cumulative Impact Sediment Chemistry Monitoring for ESC CMPs in June 2021



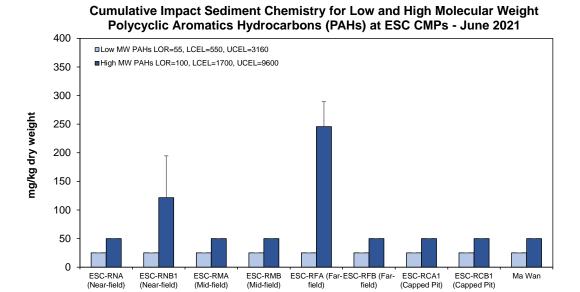


Figure 19: Concentration of Low and High Molecular Weight Polycyclic Aromatics (mg/kg dry weight; mean + SD) in sediment samples collected from Cumulative Impact Sediment Chemistry Monitoring for ESC CMPs in June 2021

Station

Cumulative Impact Sediment Chemistry for Tributyltin (TBTs) at ESC CMPs -

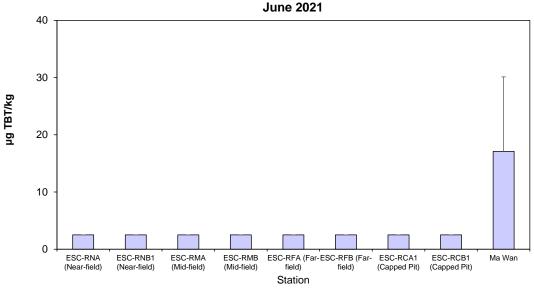


Figure 20: Concentration of Tributyltin (TBT) (μg/kg dry weight; mean + SD) in sediment samples collected from Cumulative Impact Sediment Chemistry Monitoring for ESC CMPs in June 2021

# **D. Study Programme**

# Study Programme

# Agreement No. CE 59/2020 (EP) Environmental Monitoring and Audit for Disposal Facility to the East of Sha Chau (2021-2026) - Investigation

Mott MacDonald Hong Kong Limited

