

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

August 2021

Mott MacDonald 3/F International Trade Tower 348 Kwun Tong Road Kwun Tong Kowloon Hong Kong

T +852 2828 5757 mottmac.hk

Civil Engineering and Development Department Fill Management Division 5/F, Civil Engineering and Development Building 101 Princess Margaret Road Homantin, Kowloon

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 – July 2021

August 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 - July 2021

Date of Report:

10 August 2021

Date prepared by ET:

10 August 2021

Date received by IA:

10 August 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.

Ir Thomas Chan, Environmental Team Leader (ETL):

Date: 10 August 2021

IA Verification

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

May Wang

Dr Wang Wen Xiong, Independent Auditor (IA):

Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
A	Aug 2021	Various	Thomas Chan	Eric Ching	Revision A of Submission
	·				
	·		•		
	•				
	•		•		
	·			•	
	·		•	·	

Document reference: 423134 | 06/05/04 | A

Information class: Standard

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.

Contents

1	Intro	oduction	1
	1.1	Background	1
	1.2	Reporting Period	2
	1.3	Details of Sampling and Laboratory Testing Activities	2
	1.4	Details of Outstanding Sampling or Analysis	2
2	Brie	f Discussion of Monitoring Results for ESC CMP V	3
	2.1	Introduction	3
	2.2	Water Column Profiling of ESC CMP Vb – in July 2021	3
		2.2.1 In-situ Measurements	3
		2.2.2 Laboratory Measurements for Suspended Solids (SS)	3
	2.3	Routine Water Quality Monitoring of ESC CMPs – in July 2021	3
		2.3.1 In-situ Measurements	4
		2.3.2 Laboratory Measurements	4
	2.4	Pit Specific Sediment Chemistry of ESC CMP Vb – in July 2021	4
3	Futu	ire Key Issues	6
	3.1	Activities Scheduled for the Next Reporting Period	6
	3.2	Study Programme	6
Figu	ıres		
Figu	re 2.1	Routine & Capping Water Quality Sampling Stations (Flood-Tide) for E	ESC CMPs
•	re 2.2	Pit Specific Sediment Quality Monitoring Stations for CMP V	_

Appendices

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

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 July 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



¹ 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.

² 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 – July 2021 covers the EM&A activities for the reporting period of July 2021 (from 1 to 31 July 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
- Demersal Trawling for ESC CMPs.

1.4 Details of Outstanding Sampling or Analysis

No outstanding sampling remained for the reporting month (July 2021). The following analyses are in progress and will be presented in the corresponding quarterly report:

 Species identification of the biota samples collection from Demersal Trawling for ESC CMPs in July 2021.

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; and
- Pit Specific Sediment Chemistry of ESC CMP Vb.

2.2 Water Column Profiling of ESC CMP Vb – in July 2021

Water Column Profiling was undertaken at a total of two sampling stations (Upstream and Downstream stations) on 14 July 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.³ 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 July 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 July 2021 indicated that the SS levels at both Downstream and Upstream stations complied with the WQO and 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 July 2021

Routine Water Quality Monitoring of ESC CMPs was undertaken on 15 July 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 ten (10) monitoring stations were sampled in July 2021 as shown in **Figure 2.1**.

³ http://epic.epd.gov.hk/EPICRIVER/marine/?lang=en

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

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 July 2021.

2.3.2 Laboratory Measurements

Laboratory analysis of samples obtained during the reporting period indicated that the concentrations of Arsenic, Chromium, Copper, Mercury, Nickel and Zinc were detected in the samples at all stations and their concentrations of most metals and metalloids were generally similar across stations, except the concentrations of Zinc which were higher at Ma Wan, Reference (RFF) and Intermediate (INF) 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.⁴ Therefore, the exceedances of TIN WQO at these stations are unlikely to be caused by the disposal operation at ESC CMPs. The concentration of Ammonia Nitrogen (NH₃-N) was slightly lower at Ma Wan station (**Table B4** of **Appendix B**; **Figure 8** of **Appendix C**). The concentration of Biochemical Oxygen Demand (BOD₅) was slightly higher at Ma Wan station in the reporting month (**Table B4** of **Appendix B**; **Figure 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 which was slightly above the wet season WQO while in compliance with the Action and Limit Levels (**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 July 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 13 July 2021.

The concentrations of all inorganic contaminants were lower than the Lower Chemical Exceedance Levels (LCELs) at all stations, except for Arsenic and Silver (Figures 11 and 12 of

⁴ http://www.epd.gov.hk/epd/misc/marine_quality/1986-2005/textonly/eng/index.htm

Appendix C). The concentrations of Arsenic were higher than the LCEL at Pit-Edge station ESC-NECA and Active-Pit station ESC-NPCA.

Whilst the average concentration of Arsenic in the Earth's crust is generally ~2mg/kg, significantly higher Arsenic concentrations (median = 14 mg/kg) have been recorded in Hong Kong's onshore sediments.⁵ It is presumed that the natural concentrations of Arsenic are similar in onshore and offshore sediments,⁶ and relatively high Arsenic levels may thus occur throughout Hong Kong. Therefore, the LECL exceedances of Arsenic are unlikely to be caused by the disposal operations at ESC CMP Vb but rather as a result of naturally occurring deposits.

Considering that the higher levels of Silver occurred within one Active-Pit station only but not at the Pit-Edge and Near-Pit stations, there is no evidence indicating any unacceptable environmental impacts to sediment quality as a result of the contaminated mud disposal operations at ESC CMP Vd in the reporting month. Statistical analysis will be undertaken and presented in the corresponding quarterly report to investigate whether there are any unacceptable impacts in the area caused by the contaminated mud disposal.

For organic contaminants, the concentrations of Total Organic Carbon (TOC) were higher at 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 the LECLs at all stations (**Figure 14** of **Appendix C**). The concentrations of Tributyltin (TBT), 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.

⁵ Sewell RJ (1999) Geochemical Atlas of Hong Kong. Geotechnical Engineering Office, Government of the Hong Kong Special Administrative Region

⁶ Whiteside PGD (2000) Natural geochemistry and contamination of marine sediments in Hong Kong. In: The Urban Geology of Hong Kong (ed. Page A & Reels SJ). Geological Society of Hong Kong Bulletin No. 6, p109-121

3 Future Key Issues

3.1 Activities Scheduled for the Next Reporting Period

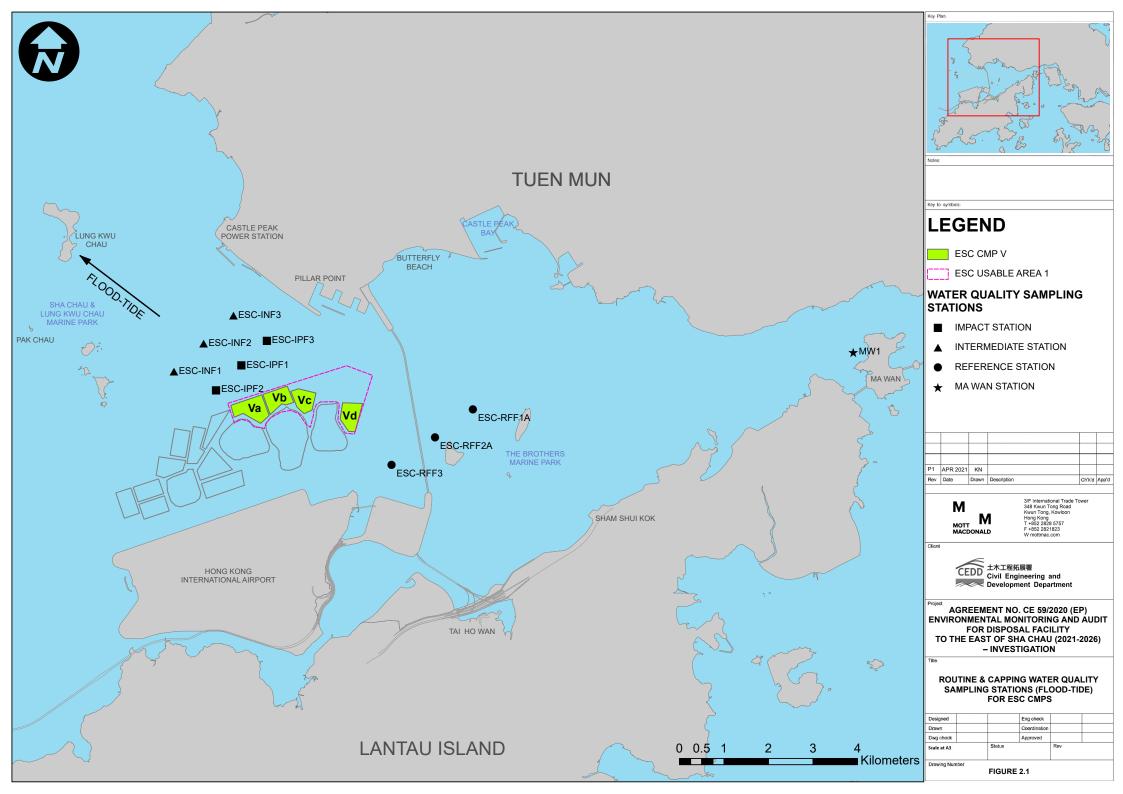
The following monitoring activities will be conducted in the next reporting period of August 2021 for ESC CMP V (see **Appendix A** for the sampling schedule):

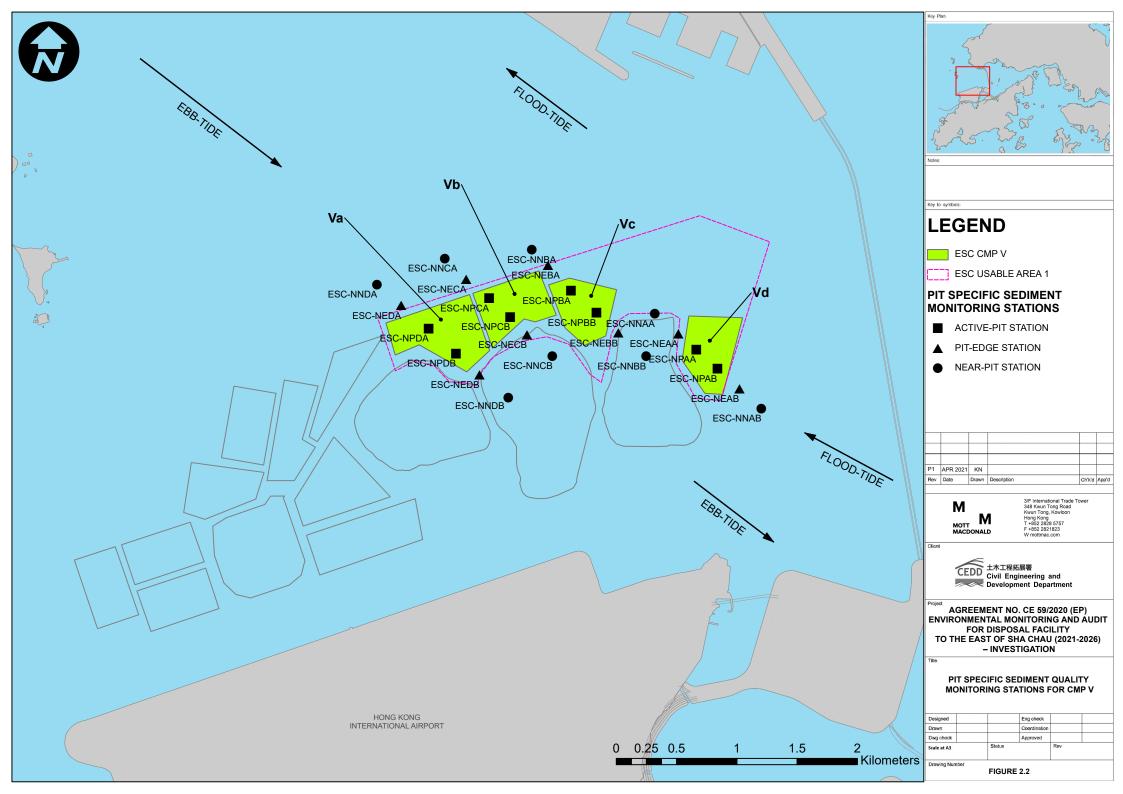
- Water Column Profiling of ESC CMP Vb;
- Routine Water Quality Monitoring of ESC CMPs;
- Pit Specific Sediment Chemistry of ESC CMP Vb;
- Cumulative Impact Sediment Chemistry of ESC CMPs;
- Sediment Toxicity Tests of ESC CMPs; and
- Demersal Trawling for ESC CMPs.

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				2	025					2026
Pit Specific Sediment Che Active-Pit	emistry *		Jan Feb				Aug Sep C		ec Jan F			n Jul Aug S	ep Oct Nov	Dec Jan Feb	Mar Apr Ma	Jun Jul	Aug Sep	Oct Nov Dec	Jan Feb M	ar Apr M	lay Jun	Jul Aug S	p Oct Nov Dec J	lan Feb Ma	ar Apr May .	,	, J	Oct Nov I	ec Jan Feb Ma
Pit-Edge	ESC-NPAA ESC-NPAB	Monthly Monthly																					6 6 6						
	ESC-NEAA ESC-NEAB	Monthly Monthly																					6 6 6						
Near-Pit	ESC-NNAA ESC-NNAB	Monthly Monthly	6 6																				6 6 6						
Cumulative Impact Sedim			Jan Feb	Mar Ap																									ec Jan Feb Ma
Near-field 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
Mid-field Stations	ESC-RMA	4 times per year	6		ÌΠ	6	6		6	6	6	6		6 6		6	6	6	6		6	6	6	6		6	6		6 6
Capped Pit Stations	ESC-RMB ESC-RCA1	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
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		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
	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 Sep C	Oct Nov D	ec Jan F	eb Mar Ap	r May Jur	n Jul Aug S	ep Oct Nov	Dec Jan Feb	Mar Apr Ma	/ Jun Jul	Aug Sep	Oct Nov Dec	Jan Feb M	ar Apr M	lay Jun	Jul Aug S	p Oct Nov Dec J	lan Feb Ma	r Apr May	Jun Jul	Aug Sep	Oct Nov I	ec Jan Feb Ma
Reference Stations	ESC-TDB1	2 times per year	5				5			5		5		5			5		5			5		5			5		5 5
Ma Wan Station	ESC-TRA ESC-TRB	2 times per year 2 times per year	5		\Box		5			5		5		5			5		5			5		5		+	5	\perp	5
	MW1	2 times per year	5				5			5		5		5			5		5			5		5			5		5
Tissue / Whole Body Sam Near-pit Stations	npling ESC-INA	2 times per year	Jan Feb	Mar Ap	r May .	Jun Jul /	Aug Sep C	Oct Nov D	ec Jan F	eb Mar Ap	r May Jur	n Jul Aug S	ep Oct Nov	Dec Jan Feb	Mar Apr Ma	Jun Jul	Aug Sep	Oct Nov Dec	Jan Feb M	ar Apr M	lay Jun	Jul Aug S	p Oct Nov Dec J	lan Feb Ma	ar Apr May .	Jun Jul	Aug Sep	Oct Nov I	ec Jan Feb Ma
Reference North	ESC-INB	2 times per year			##		•					*					٠		*			•		•			*		
Reference South	TNA TNB	2 times per year 2 times per year	*		\coprod		:	\blacksquare				*		- :			:		*			-					*	\perp	- :
Reference South	TSA TSB	2 times per year 2 times per year	*		\blacksquare			$\overline{\mathbf{H}}$		*		*							*					*			*	$\overline{}$	*
Demersal Trawling			Jan Feb	Mar Ap	r May .	Jun Jul /	Aug Sep C	Oct Nov D	ec Jan F	eb Mar Ap	r May Jur	n Jul Aug S	ep Oct Nov	Dec Jan Feb	Mar Apr Ma	Jun Jul	Aug Sep	Oct Nov Dec	Jan Feb M	ar Apr M	lay Jun	Jul Aug S	p Oct Nov Dec J	lan Feb Ma	ar Apr May .	Jun Jul	Aug Sep	Oct Nov I	ec Jan Feb Ma
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		Н	5 5 5 5
Reference North	TNA	4 times per year	5 5		Ħ	5	5		5	5		5 5		5 5		5	5	$\exists $	5 5	$\overline{\Box}$		5 5		5 5		5	5		5 5
Reference South	TNB	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
	TSB	4 times per year 4 times per year	5 5		Ш	5	5		5	5		5 5		5 5		5	5		5 5			5 5		5 5		5	5		5 5
Capping * Ebb Tide Impact Station Downcurre	ent		Jan Feb	Mar Ap	or May .	Jun Jul /	Aug Sep C	Oct Nov D	ec Jan F	eb Mar Ap	r May Jur	n Jul Aug S	ep Oct Nov	Dec Jan Feb	Mar Apr Ma	/ Jun Jul	Aug Sep	Oct Nov Dec	Jan Feb M	ar Apr M	lay Jun	Jul Aug S	p Oct Nov Dec J	lan Feb Ma	ir Apr May	Jun Jul	Aug Sep	Oct Nov I	ec Jan Feb Ma
impact Station Downcurre	ESC-IPE1A ESC-IPE2A	4 times per year * 4 times per year *			Н																								
	ESC-IPE3 ESC-IPE4 ESC-IPE5	4 times per year * 4 times per year *																											
Intermediate Station Dow		4 times per year * 4 times per year *																											
	ESC-INE2A ESC-INE3A ESC-INE4A	4 times per year * 4 times per year * 4 times per year *			Н																								
Reference Station Upcurr	ESC-INE5A	4 times per year *																											
	ESC-RFE1 ESC-RFE2	4 times per year * 4 times per year *			Н																								
	ESC-RFE3 ESC-RFE4 ESC-RFE5	4 times per year * 4 times per year * 4 times per year *																											
Ma Wan Station	MW1	4 times per year *																										\pm	
Flood Tide Impact Station Downcurre	ent																												
	ESC-IPF1 ESC-IPF2	4 times per year * 4 times per year *			\blacksquare	\blacksquare																							
Intermediate Station Dow	ESC-IPF3 /ncurrent ESC-INF1	4 times per year * 4 times per year *						\dashv																				\rightarrow	
	ESC-INF2 ESC-INF3	4 times per year * 4 times per year *																										\blacksquare	
Reference Station Upcurr		4 times per year *									т т																		
		4 times per vear *																				++	 			Ŧ			
Ma Wan Station	ESC-RFF3	4 times per year *																											
	ESC-RFF3		Jan Feb	Mar Ap	or May	Jun Jul V	Aug Sep C	Oct Nov D	Dec Jan F	eb Mar Ar	r May Jur	n Jul Aug S	ep Oct Nov	Dec Jan Feb	Mar Apr Ma	Jun Jul	Aug Sep	Oct Nov Dec	Jan Feb M	ar Apr M	lay Jun	Jul Aug S	D Oct Nov Dec J	lan Feb Ma	ar Apr May	Jun Jul	Aug Sep	Oct Nov I	ec Jan Feb Ma
Ma Wan Station Routine Water Quality Mc Ebb Tide Impact Station Downcurre	ESC-RFF3 MW1 onitoring *	4 times per year * 4 times per year *	Jan Feb	Mar Ap																									ec Jan Feb Ma
Routine Water Quality Mo	MW1 onitoring * ent ESC-IPE1A ESC-IPE2A	4 times per year * 4 times per year * Monthly* Monthly*	Jan Feb	4	4 4	4 4 4 4	4 4 4	4 4 4	4 4 4 4	4 4 4 4 4 4	4 4	4 4 4	4 4 4 4 4 4	4 4 4 4 4 4	4 4 4	4 4 4	4 4 4	4 4 4 4 4 4	4 4 4	4 4 4 4 4	4 4 4 4	4 4 4	4 4 4 4	4 4 4 4 4 4	4 4	4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre	ent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5	4 times per year * 4 times per year * Monthly*	Jan Feb	4	4 4 4 4	4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4	4 4 4 4 4 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 4 4 4 4 4 4 4 4 4
Routine Water Quality Mo	ent ESC-IPE1A ESC-IPE3 ESC-IPE3 ESC-IPE4 ESC-IPE4 ESC-IPE4 ESC-IPE5 ESC-IPE5 ESC-IPE6	4 times per year * 4 times per year * Monthly* Monthly* Monthly* Monthly* Monthly* Monthly*	Jan Feb	4 4 4 4 4	4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 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 4 4 4 4	4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre	ent ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE4 ESC-IPE5 mourrent ESC-INE1A ESC-INE2A ESC-INE2A ESC-INE3A ESC-INE3A	4 times per year * 4 times per year * Monthly*	Jan Feb	4 4 4 4 4 4	4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 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 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre	ent ESC-IPE1A ESC-IPE3 ESC-IPE3 ESC-IPE4 ESC-IPE5 ESC-IPE5 ESC-IPE5 ESC-IPE5 ESC-INE1A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE3A	4 times per year * 4 times per year * Monthly*	Jan Feb	4 4 4 4 4 4	4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow	ent ESC-IPE1A ESC-IPE1A ESC-IPE3 ESC-IPE3 ESC-IPE4 ESC-IPE5 INCLIFE INCLIF INCLIF INCLIF INCLIF INCLIF	4 times per year * 4 times per year * Monthly*	Jan Feb	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow	ent ESC-IPE1A ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE3 ESC-IPE4 ESC-IPE5 mcurrent ESC-INE1A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE3E ESC-INE3E	4 times per year * 4 times per year * Monthly*	Jan Feb	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr	ent ESC-IPE1A ESC-IPE3 ESC-IPE4 ESC-IPE3 ESC-IPE4 ESC-IPE5 ESC-INE1A ESC-INE1A ESC-INE3A ESC-INE	4 times per year * 4 times per year * Monthly*	Jan Feb	4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr	ent ESC-IPE1A ESC-IPE1A ESC-IPE2A ESC-IPE3 ESC-IPE3 ESC-IPE4 ESC-IPE5 mourrent ESC-INE1A ESC-INE3A ESC-RFE1 ESC-RFE2 ESC-RFE3 ESC-RFE3 ESC-RFE4	4 times per year * 4 times per year * Monthly*	Jan Feb	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Flood Tide Impact Station Downcurre	ent ESC-IPE1A ESC-IPE4 ESC-IPE4 ESC-IPE5 MW1 ESC-IPE4 ESC-IPE5 MCUrrent ESC-INE1A ESC-INE1A ESC-INE2A ESC-INE3A ESC-IRE3 ESC-RFE3 ESC-RFE4 ESC-IPE5 MW1 ENT ESC-IPE1 ESC-IPE1 ESC-IPE3	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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station	ent ESC-IPE1A ESC-IPE3 ESC-IPE4 ESC-IPE4 ESC-IPE4 ESC-IPE5 ESC-IPE4 ESC-IPE5 ESC-IPE4 ESC-IPE5 ESC-IPE4 ESC-IPE4 ESC-IPE5 ESC-IPE4 ESC-IPE4 ESC-IPE4 ESC-IPE4 ESC-IPE4 ESC-IPE5 ESC-IPE5 ESC-IPE5 ESC-IPE5 ESC-IPE5 ESC-IPE5	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 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Flood Tide Impact Station Downcurre	ent ESC-IPE1A ESC-IPE3 ESC-IPE3 ESC-IPE4 ESC-IPE5 ESC-INE3A ESC-IPE3 ESC-RFE3 ESC-RFE3 ESC-RFE4 ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-INE3 ESC-IN	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 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Flood Tide Impact Station Downcurre Intermediate Station Downcurre Intermediate Station Downcurre	ent ESC-IPE1A ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-INE1A ESC-INE3A ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-INE3 ESC-IPE3 ESC-INE3 ESC-INE5	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 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Flood Tide Impact Station Downcurre Intermediate Station Downcurre Intermediate Station Downcurre	ent ESC-IPE1A ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE4 ESC-IPE4 ESC-IPE4 ESC-IPE4 ESC-IPE5 ESC-IRE3 ESC-IRE3 ESC-IRE4 ESC-IRE5 ESC-RFE3 ESC-RFE4 ESC-IPE5 ESC-IPE7 ESC-IPE7 ESC-IPE7 ESC-IPE7 ESC-IPE7 ESC-IPE7 ESC-IPE7 ESC-IPE7 ESC-IRE4 ESC-IPE7 ESC-IPE7 ESC-IPE7 ESC-IPE7 ESC-IRE5 ESC-IPE7 ESC-IRE5 ESC-IPE7 ESC-IRE5 ESC-IRE5 ESC-IPE7 ESC-IRE5 ESC-IRE	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	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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Intermediate Station Downcurre Intermediate Station Downcurre Intermediate Station Downcurre Ma Wan Station Water Column Profiling	ent ESC-IPE1A ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE4 ESC-IPE4 ESC-IPE4 ESC-IPE5 ESC-IPE4 ESC-IPE5 ESC-IPE4 ESC-IPE5 ESC-IPE5 ESC-IPE3 ESC-IPE5 ESC-IPE	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 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Flood Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Upcurr	ent ESC-IPE1A ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE4 ESC-IPE4 ESC-IPE4 ESC-IPE5 ESC-IPE4 ESC-IPE5 ESC-IPE4 ESC-IPE5 ESC-IPE5 ESC-IPE3 ESC-IPE5 ESC-IPE	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 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Flood Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Water Column Profiling * Plume Stations Benthic Recoloinisation S Benthic Recoloinisation S	ent ESC-IPE1A ESC-IPE3 ESC-IPE4A ESC-IPE5A ESC	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 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Flood Tide Impact Station Downcurre Intermediate Station Downcurre Intermediate Station Downcurre Ma Wan Station Water Column Profiling * Plume Stations	ent ESC-IPE1A ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE4 ESC-IPE4 ESC-IPE5 ESC-INE3A ESC-INE4A ESC-INE5A ESC-IPE5 ESC-IPE3 ES	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 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Flood Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Water Column Profiling * Plume Stations Benthic Recoloinisation S Benthic Recoloinisation S	ent ESC-IPE1A ESC-IPE3 ESC-IPE4 ESC-IPE4 ESC-IPE4 ESC-IPE4 ESC-IPE4 ESC-IPE5 ESC-INE1A ESC-INE1A ESC-INE1A ESC-INE1A ESC-INE1A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE4A ESC-INE3A ESC-INE4A ESC-INE5A Fent ESC-IPE4 ESC-IPE5 ESC-IPE7 ESC-IPE7 ESC-IPE7 ESC-IPE7 ESC-INE1A ESC-IPE7 ESC-INE1A ESC-IPE7 ESC-INE1A ESC-IPE7 ESC-INE1A ESC-IPE7 ESC-INE1A ESC-	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 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Flood Tide Impact Station Downcurre Intermediate Station Downcurre Ma Wan Station Water Column Profiling * Plume Stations Benthic Recoloinisation S Benthic Recoloinisation S	ESC-RFF3 MW1 onitoring * ent ESC-IPE1A ESC-IPE1A ESC-IPE3A ESC-IPE3A ESC-IPE4 ESC-INE3A ESC-IPE1 ESC-RFE3 ESC-RFE3 ESC-IPF1 ESC-IPF1 ESC-IPF1 ESC-IPF3 MW1 ent ESC-IPF1 ESC-IPF3 MW1 ESC-IPF3 MW1 ESC-RFF3A MW1 ESC-RFF3A MW1 ESC-RFF3A ESC-RFF3A MW1 ESC-RFF3A ESC-RFG3A ESC-RFG3A	4 times per year * 4 times per year * Monthly* Immaria in the per year 2 times per year 2 times per year 2 times per year 2 times per year	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Flood Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Water Column Profiling * Plume Stations Benthic Recoloinisation S Capped Stations at CMP*	esc-RFF3 MW1 conitoring * ent ESC-IPE1A ESC-IPE1A ESC-IPE3A ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE4 ESC-IPE3 ESC-INE1A ESC-INE1A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE3A ESC-IPE3 MW1 ent ESC-IPF1 ESC-IPF3 mcurrent ESC-IPF3 mcurrent ESC-IPF3 mcurrent ESC-RFE3 MW1 ESC-IPF3 MW1 WCP1 WCP2 Studies V ESCV-CPA ESCV-CPC ESCV-CPC	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 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Flood Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Water Column Profiling * Plume Stations Benthic Recoloinisation S Capped Stations at CMP*	ent ESC-IPE1A ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE3 ESC-IPE4 ESC-IPE4 ESC-IPE5 ESC-IPE4 ESC-IPE5 ESC-IPE4 ESC-IPE5 ESC-IPE4 ESC-IPE5 ESC-IPE4 ESC-IPE5 ESC-IPE	4 times per year * 4 times per year * Monthly* Image: A compare the compare	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Flood Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Water Column Profiling * Plume Stations Benthic Recoloinisation S Capped Stations at CMP* Reference Stations	ent ESC-IPE1A ESC-IPE1A ESC-IPE2A ESC-IPE3A ESC-IPE3A ESC-IPE4 ESC-IPE5 MCUrrent ESC-INE1A ESC-INE1A ESC-INE1A ESC-INE1A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE4A ESC-INE4A ESC-INE4A ESC-INE4B ESC-INE4B ESC-INE4B ESC-IPE1 ESC-IPF1 ESC-IPF1 ESC-IPF1 ESC-IPF2 ESC-INF1 ESC-INF1 ESC-INF2 ESC-INF3 MW1 WCP1 WCP2 SSTudies V ESCV-CPA ESCV-CPB ESCV-CPC ESCV-CPD RBA RBB RBC1	4 times per year * 4 times per year * Monthly* Z times per year Z times per year Z times per year Z times per year	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Flood Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Water Column Profiling * Plume Stations Benthic Recoloinisation S Capped Stations at CMP Reference Stations	ESC-RFF3 MW1 onitoring * ent ESC-IPE1A ESC-IPE1A ESC-IPE3A ESC-IPE4 ESC-IPE3A ESC-IPE4 ESC-IPE4 ESC-INE1A ESC-INE1A ESC-INE1A ESC-INE1A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE4A ESC-INE4A ESC-INE3A ESC-INE4A ESC-INE3A ESC-INE4A ESC-INE4A ESC-INE4A ESC-INE4A ESC-INE5A MW1 ent ESC-IPF1 ESC-IPF2 ESC-IPF3 mcurrent ESC-INF1 ESC-INF1 ESC-INF2 ESC-INF3 MW1 WCP1 WCP2 SVV ESCV-CPA ESCV-CPA ESCV-CPB ESCV-CPD RBA RBB RBC1 US1 US1 US1 US1 US1 US1 DS1 DS	4 times per year * 4 times per year * Monthly* 3 times per year 2 times per year 2 times per year 2 times per year 3 times per week 3 times per week 3 times per week 3 times per week	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Flood Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Water Column Profiling * Plume Stations Benthic Recoloinisation S Capped Stations at CMP* Reference Stations	ESC-RFF3 MW1 onitoring * ent ESC-IPE1A ESC-IPE1A ESC-IPE3A ESC-IPE4 ESC-IPE5 mcurrent ESC-INE1A ESC-INE1A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE3A ESC-INE4A ESC-INE3A ESC-INE4A ESC-INE4A ESC-INE4A ESC-INE4A ESC-INE4A ESC-INE4A ESC-INE4A ESC-INE4A ESC-INE4A ESC-IPE1 ESC-IPF1 ESC-IPF1 ESC-IPF1 ESC-IPF2 ESC-INF1 ESC-INF1 ESC-INF2 ESC-INF3 mcurrent ESC-INF1 ESC-INF2 ESC-INF3 MW1 WCP1 WCP1 WCP2 SStudies V ESCV-CPA ESCV-CPD RBA RBB RBC1 edging US1 US2 DS1 DS2 DS3 DS4	4 times per year * 4 times per year * Monthly* 3 times per year 2 times per year 2 times per year 2 times per year 3 times per week	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Routine Water Quality Mc Ebb Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Flood Tide Impact Station Downcurre Intermediate Station Dow Reference Station Upcurr Ma Wan Station Water Column Profiling * Plume Stations Benthic Recoloinisation S Capped Stations at CMP* Reference Stations	ESC-RFF3 MW1 conitoring * ent ESC-IPE1A ESC-IPE1A ESC-IPE3A ESC-IPE3A ESC-IPE4 ESC-IPE3A ESC-IPE4 ESC-INE3A ESC-IPE1 ESC-IPF1 ESC-IPF1 ESC-IPF1 ESC-IPF3 ESC-IPF3 MW1 WCP1 WCP2 Studies V ESCV-CPA ESCV-CPB ESCV-CPB RBA RBB RBC1 LS1 LS2 LS3 LS3 LS3 LS3 LS3 LS3 LS3	4 times per year * 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 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 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 boiled 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.
(2) For the planned Routine Water Quality Monitoring (i.e. the numbers of replicates per monitoring station shown in black), the monitoring will be conducted at mid-ebb OR mid-flood tide. The yearly tidal selection of this monitoring will be based on a principle to obtain 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.

Remarks:

A proposal on the change of number of sample replication of water quality. & sediment monitoring and 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 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 have be conducted monthly starting in December 2020. The number of sampling replicates can be further reduced according 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 ⁽²⁾	Surface and Middle Depth ⁽²⁾				
in mg L ⁻¹ (Surface, Middle & Bottom) ⁽¹⁾	5%-ile of baseline data for surface and middle layer = 3.76	1%-ile of baseline data for surface and middle layer = 3.11 ⁽³⁾				
	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 = 2.96	The average of the impact station reading 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 ⁻¹	95%-ile of baseline data for depth- averaged = 37.88	99%-ile of baseline data for depth- averaged = 61.92				
(depth-averaged)(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 = 28.14	99%-ile of baseline data = 38.32				
in NTU	and	and				
(depth-averaged) ⁽⁴⁾⁽⁵⁾	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.
- 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⁻¹, it is proposed to set the Limit Level at 3.11 mg L⁻¹ 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 July 2021

Station	Temp.	Salinity	Turbidity	Dissolve	d Oxygen	рН	Suspended Solids		
	(°C)	(ppt)	(NTU)	(%)	(mg L ⁻¹)		(mg L ⁻¹)		
WCP 1 (Downstream)	29.05	22.76	5.87	97.01	6.57	8.05	5.5		
WCP 2 (Upstream)	29.20	22.26	7.88	103.45	7.01	8.07	4.8		
WQO (Wet Season)	N/A	20.04 – 24.49#	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 July 2021

Station	Temp.	Salinity	Turbidity	Dissolve	рН	
	(°C)	(ppt)	(NTU)	(%)	(mg L ⁻¹)	
RFF (Reference)	28.74	24.04	8.42	82.56	5.58	8.00
IPF (Impact)	28.49	24.87	6.34	76.98	5.20	7.94
INF (Intermediate)	28.87	23.70	4.51	83.01	5.61	7.95
Ma Wan	27.92	26.70	2.72	72.11	4.87	8.02
WQO (Wet Season)	N/A	21.64 - 26.44#	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 July 2021

Station	As	Cd	Cr	Cu	Pb	Hg	Ni	Ag	Zn	NH_3	TIN	BOD ₅	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	3.44	<lor< td=""><td>2.35</td><td>1.81</td><td><lor< td=""><td>0.66</td><td>2.03</td><td><lor< td=""><td>9.08</td><td>0.10</td><td>0.55</td><td>1.57</td><td>11.8</td></lor<></td></lor<></td></lor<>	2.35	1.81	<lor< td=""><td>0.66</td><td>2.03</td><td><lor< td=""><td>9.08</td><td>0.10</td><td>0.55</td><td>1.57</td><td>11.8</td></lor<></td></lor<>	0.66	2.03	<lor< td=""><td>9.08</td><td>0.10</td><td>0.55</td><td>1.57</td><td>11.8</td></lor<>	9.08	0.10	0.55	1.57	11.8
IPF	2.58	<lor< td=""><td>2.10</td><td>1.53</td><td><lor< td=""><td>0.47</td><td>1.53</td><td><lor< td=""><td>3.27</td><td>0.11</td><td>0.57</td><td>1.41</td><td>12.5</td></lor<></td></lor<></td></lor<>	2.10	1.53	<lor< td=""><td>0.47</td><td>1.53</td><td><lor< td=""><td>3.27</td><td>0.11</td><td>0.57</td><td>1.41</td><td>12.5</td></lor<></td></lor<>	0.47	1.53	<lor< td=""><td>3.27</td><td>0.11</td><td>0.57</td><td>1.41</td><td>12.5</td></lor<>	3.27	0.11	0.57	1.41	12.5
INF	3.38	<lor< td=""><td>2.33</td><td>1.56</td><td><lor< td=""><td>0.57</td><td>1.91</td><td><lor< td=""><td>7.01</td><td>0.11</td><td>0.63</td><td>1.42</td><td>8.3</td></lor<></td></lor<></td></lor<>	2.33	1.56	<lor< td=""><td>0.57</td><td>1.91</td><td><lor< td=""><td>7.01</td><td>0.11</td><td>0.63</td><td>1.42</td><td>8.3</td></lor<></td></lor<>	0.57	1.91	<lor< td=""><td>7.01</td><td>0.11</td><td>0.63</td><td>1.42</td><td>8.3</td></lor<>	7.01	0.11	0.63	1.42	8.3
Ma Wan	3.40	<lor< td=""><td>2.43</td><td>1.28</td><td><lor< td=""><td>0.85</td><td>1.73</td><td><lor< td=""><td>13.00</td><td>0.09</td><td>0.39</td><td>1.83</td><td>4.7</td></lor<></td></lor<></td></lor<>	2.43	1.28	<lor< td=""><td>0.85</td><td>1.73</td><td><lor< td=""><td>13.00</td><td>0.09</td><td>0.39</td><td>1.83</td><td>4.7</td></lor<></td></lor<>	0.85	1.73	<lor< td=""><td>13.00</td><td>0.09</td><td>0.39</td><td>1.83</td><td>4.7</td></lor<>	13.00	0.09	0.39	1.83	4.7

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.
- 3. Cell shaded grey indicates value exceeding the WQO.

C. Graphical Presentations



Routine Water Quality Monitoring for ESC CMP V - July 2021

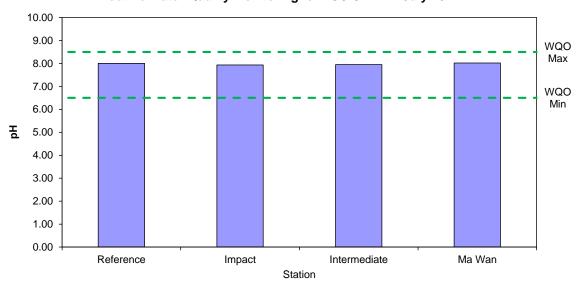


Figure 1: Level of pH recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in July 2021

Routine Water Quality Monitoring for ESC CMP V - July 2021

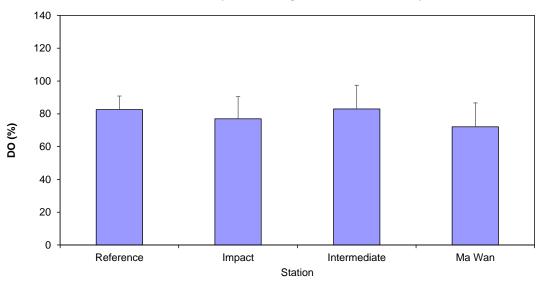


Figure 2: Level of Dissolved Oxygen (DO) (% saturation; mean + SD)¹ recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in July 2021

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 - July 2021

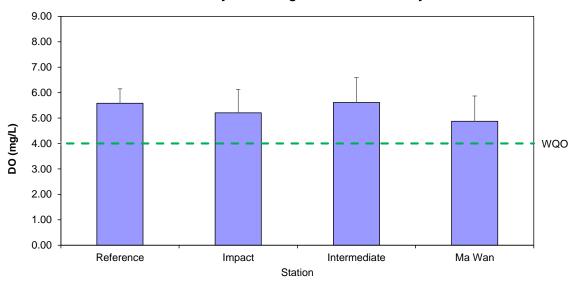


Figure 3: Concentration of Dissolved Oxygen (DO) (mg/L; mean + SD)¹ recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in July 2021

Routine Water Quality Monitoring for ESC CMP V - July 2021 30.00 25.00 20.00 10.00 Reference Impact Intermediate Ma Wan

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

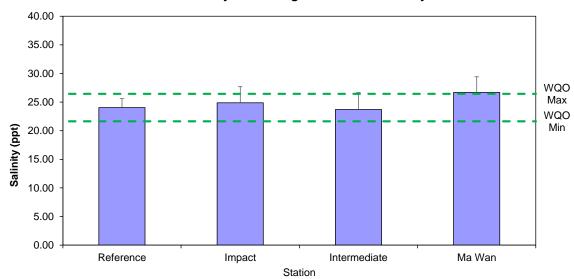


Figure 5: Level of Salinity (ppt; mean + SD)¹ recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in July 2021

Routine Water Quality Monitoring for ESC CMP V - July 2021

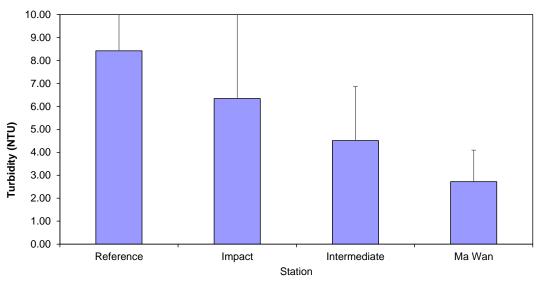


Figure 6: Level of Turbidity (NTU; mean + SD)¹ recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in July 2021

¹ 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 July 2021

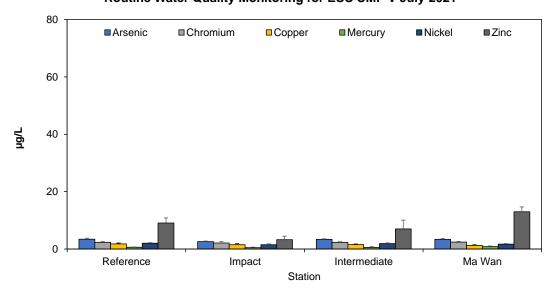


Figure 7: Concentration of Arsenic, Chromium, Copper, Mercury, Nickel, and Zinc (µg/L; mean + SD) in water samples collected from Routine Water Quality Monitoring for disposal operations at ESC CMP V in July 2021

Routine Water Quality Monitoring for Nutrients - July 2021

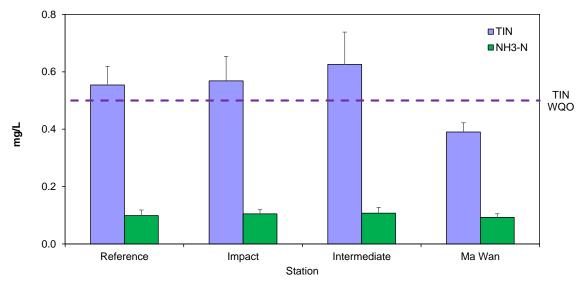


Figure 8: Concentration of Total Inorganic Nitrogen (TIN) and Ammonia Nitrogen (NH3-N) (mg/L; mean + SD) in water samples collected from Routine Water Quality Monitoring for disposal operations at ESC CMP V in July 2021



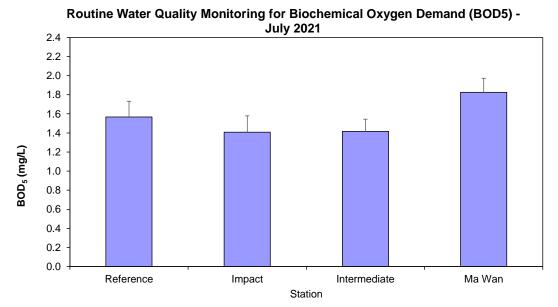


Figure 9: Level of Biochemical Oxygen Demand (BOD5) (mg/L; mean + SD) in water samples collected from Routine Water Quality Monitoring for disposal operations at ESC CMP V in July 2021

25 20 15 10 8 Reference Impact Intermediate Ma Wan

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 July 2021

Station

Routine Water Quality Monitoring for Suspended Solids - July 2021



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

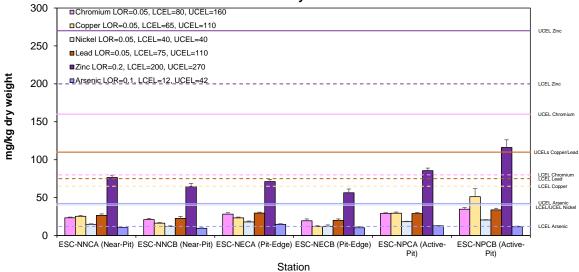


Figure 11: Concentration of Metals and Metalloid (Cr, Cu, Ni, Pb, Zn, As; mg/kg dry weight; mean + SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vb in July 2021

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

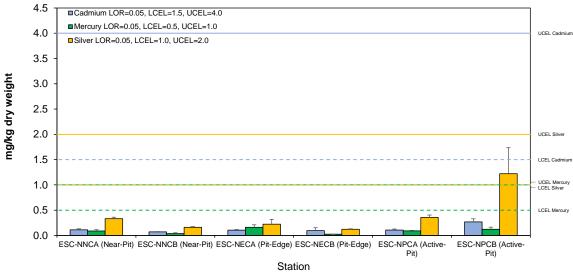


Figure 12: Concentration of Metals (Cd, Hg, Ag; mg/kg dry weight; mean + SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vb in July 2021



Pit Specific Sediment Chemistry for Total Organic Carbon (TOC) at ESC CMP Vb - July 2021

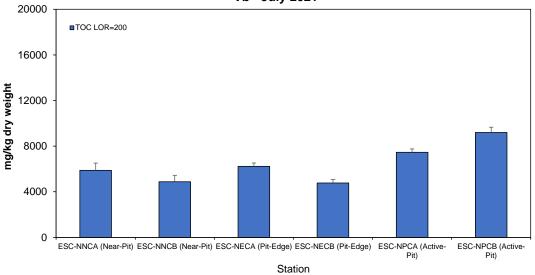


Figure 13: Concentration of Total Organic Carbon (TOC) (mg/kg dry weight; mean + SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vb in July 2021

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

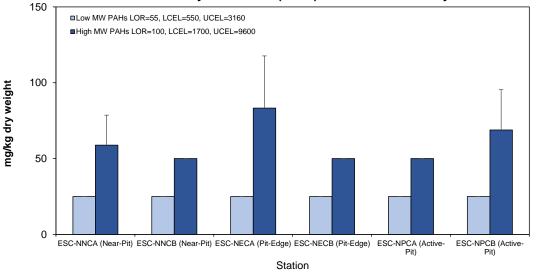


Figure 14: Concentration of Low and High Molecular Weight Polycyclic Aromatic Hydrocarbons (mg/kg dry weight; mean + SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vb in July 2021

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

