



水務署

Water Supplies Department

Contract No. 13/WSD/17

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

**Operation Phase Monthly EM&A Report No.14
(Period from 1 August to 31 August 2025)**

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	Certified by:
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Position	Environmental Team Leader
Signature	
Date:	16 September 2025



Our ref.: LES/J2024-01/CS/L110
Date : 18 September 2025

By Email

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

Attn: Mr. W.S. Wong / S K Wong

Dear Sirs,

**Independent Environmental Checker (IEC) for Construction and Operation of the
First Stage Desalination Plant at Tseung Kwan O (Quotation Ref. No. TKO1/IEC/003)**

**Verification of Operation Phase Monthly Environmental Monitoring and Audit (EM&A)
Report for August 2025**

Referring to the Operation Phase Monthly Environmental Monitoring and Audit Report (August 2025) Rev.2.0 as submitted by the Environmental Team on 18 September 2025, we hereby verify the captioned report for further submission to the Director's Representative of the Project according to Clause 3.5 of the Environmental Permit EP-503/2015/B and Further Environmental Permit FEP-01/503/2015/B.

Should you have any queries, please contact the undersigned at 61496683, or email at serenashek@lamenviro.com.

Yours sincerely,
For and On Behalf Of
Lam Environmental Services Limited

Serena Shek
Independent Environmental Checker

Aurecon (Attn.: Toby Wan)

By E-mail

REVISION HISTORY

REV.	DESCRIPTION OF MODIFICATION	DATE
1.	1 st Issue	9/9/2025
2.	2 nd Issue	16/9/2025

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EXECUTIVE SUMMARY

INTRODUCTION

- A1. The Project, Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant (TKODP), is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO) and is currently governed by a Further Environmental Permit (EP No. FEP – 01/503/2015/B) for the operation phase of the Contract.
- A2. In accordance with the Environmental Monitoring and Audit (EM&A) Manual for the Contract, EM&A works for marine water quality, waste management and ecology should be carried out by Environmental Team (ET), Aurecon Hong Kong Limited (Aurecon), during the Tseung Kwan O Desalination Plant.
- A3. The TKODP commenced the operation stage on 1 July 2024. This is the 14th Operation Phase Monthly EM&A Report, prepared by Aurecon, for the Contract summarizing the monitoring results and audit findings of the EM&A programme at and around Tseung Kwan O Area 137 (TKO 137) during first-year operation of Tseung Kwan O Desalination Plant in [August 2025](#).
- A4. The EM&A programme for this contract has covered environmental monitoring on water quality and Contractor's environmental performance auditing in the aspects of dust, landfill gas, water quality, waste management, Landscape and Visual and Ecology.

SUMMARY OF EXCEEDANCE & INVESTIGATION & FOLLOW-UP

WATER QUALITY MONITORING

- A5. The first-year operation phase marine water quality monitoring was completed on 30 June 2025. No marine water quality monitoring was conducted during the reporting period.
- A6. EM&A works for continuous monitoring of effluent quality were conducted during the reporting period in accordance with the EM&A Manual. No exceedance of the sampling was obtained during the reporting period.
- A7. According to the contractor, water production ceased on [14 August 2025](#) due to WSD maintenance works and continuous monitoring of effluent quality was discontinued on [15 August 2025](#).
- A8. According to the approved proposal to change the operation phase EM&A programme for the 2nd to 10th years, continuous monitoring of effluent quality was discontinued and replaced with effluent water monitoring in compliance with discharge license requirements starting from [15 August 2025](#).

ECOLOGY IMPACT MONITORING

- A9. Monthly operation phase coral monitoring works was conducted on [21 August 2025](#). There is no AL/LL exceedance during the monitoring period.
- A10. Operation phase fishery monitoring for wet season 2025 was carried out on [16 and 23 August 2025](#). Details of the survey report will be provided once available.

LANDFILL GAS MONITORING

- A11. In this reporting period, monthly landfill gas monitoring was conducted on [14 and 15 August 2025](#). No exceedances of action level and limit level was observed.

WEEKLY SITE INSPECTIONS

- A12. In this reporting period, site inspections were carried out by ET on [7, 14 and 28 August 2025](#). Joint site inspections of the operation work by ET and IEC were carried out on [28 August 2025](#) to audit the mitigation measures implementation status.
- A13. According to the approved proposal to change the operation phase EM&A programme for the 2nd to 10th years, site inspection will be conducted on a bi-weekly basis starting from 15 August 2025.

COMPLAINT HANDLING AND PROSECUTION

- A14. **No** environmental complaints, notification of summons and prosecution were received in the reporting period.

REPORTING CHANGE

- A15. According to the contractor's information, the Anti-scalant dosage commenced on 10 April 2025. The Anti-scalant water quality test was also conducted starting from the same date.
- A16. The works of TKODP were substantially completed on 30 June 2024 and the plant commenced the operation phase on 1 July 2024. A Justification of Termination of the EM&A Programme for the Construction Phase was resubmitted to the EPD on [11 August 2025](#) and approved by the EPD on [15 August 2025](#).

A proposal to change the operation phase EM&A programme was submitted to the EPD on [11 August 2025](#) and approved by the EPD on [15 August 2025](#).

1. BASIC CONTRACT INFORMATION

BACKGROUND

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

THE REPORTING SCOPE

- 1.4. This is the 14th Operation Phase Monthly EM&A Report for the Contract which summarizes the key findings of the EM&A programme of the Tseung Kwan O Desalination Plant Operation phase during the reporting period from 1 August to 31 August 2025.

CONTRACT ORGANIZATION

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

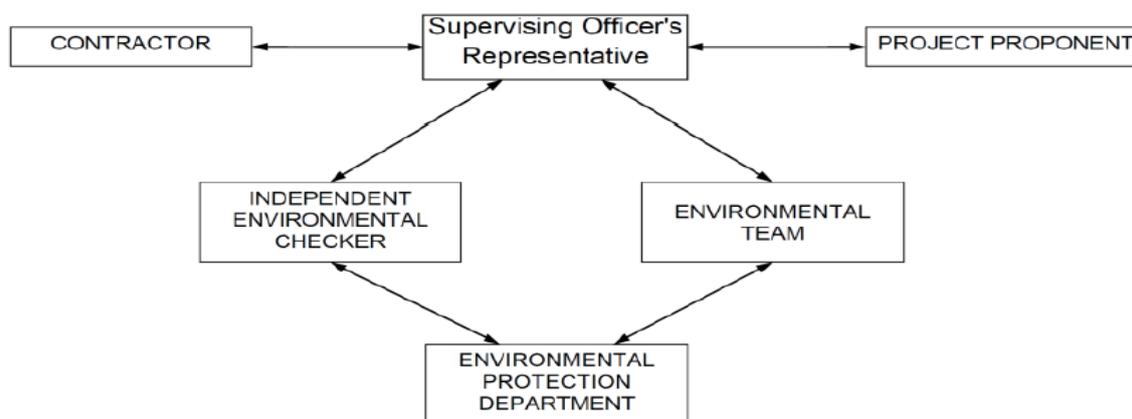


Figure 1.1 Contract Organization Chart

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

Table 1.1 Contact Details of Key Personnel

Party	Position	Name	Telephone no.
Contract Proponent (Water Supplies Department)	SE/CM2	Milton Law	2634-3573
Supervising Officer (Binnies Hong Kong Limited)	Project Manager	Augustine Li	2608-7671
	Senior Resident Engineer	Mason Pau	6765-4131
The Jardine Engineering Corporation, Limited, China State Construction Engineering (Hong Kong) Limited and Acciona Agua, S.A. Trading	Project Manager (Acting)	Arnes Parra, Victor	6468-6710
	Environmental Monitoring Manager	Brian Kam	9456-9541
	Environmental Monitoring Manager	Tommy Law	6468-1782
Aurecon Hong Kong Limited	Environmental Team Leader	Toby Wan	9719-5422
Lam Environmental Services Limited	Independent Environmental Checker (IEC)	Serena Shek	6149-6683

SUMMARY OF OPERATION WORKS

- 1.7. Details of the major operation activities undertaken in this reporting period are shown below.
- 1.8. As informed by the Contractor, key activities carried out in this reporting period for the Contract included the followings:
- Potable Water Production
- 1.9. The key environmental mitigation measures implemented for the Contract in this reporting period associated with the above operation works include:
- Regularly monitoring of the effluent
 - Sorting and storage of general refuse and operation waste
- 1.10. Summary of the valid permits, licences, and/or notifications on environmental protection for this Contract is presented in **Table 1.2**.

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

Permit/ Licences	Valid Period		Status	Remark
	From	To		
Environmental Permit				
EP-503/2015/B	Throughout the Contract		Valid	-Issued on 3 April 2024
FEP 01/503/2015/B	Throughout the Contract		Valid	-Issued on 3 April 2024
Billing Account for Disposal				
7036276	Throughout the Contract		Valid	-
Sludge (Special Waste) Disposal (Admission Ticket)				
115399	23/08/2025	22/02/2026	Valid	-
Chemical Waste Producer Registration				
5213-839-A2987-01	Throughout the Contract		Valid	-
Wastewater Discharge Licence (Land and Marine works)				
WT00044188-2023	16/06/2023	30/06/2028	Valid	<ul style="list-style-type: none"> - For Plant T&C and operation. - Variation sampling point S.P.1 is approved by the EPD on 25 June 2024 (EPD ref.: EP640/W3/D1358/46 2874). EPD advise that we can use the current discharge license for the anti-scalant dosing and discharge limit. They agreed that the report can show the 5PPM is the lowest detection limit. The variation of application was withdrawn on 13 Dec 2024.

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

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

Parameters	Status
Water Quality	
Baseline Monitoring under EM&A Manual	The baseline water quality monitoring was conducted between 12 May 2020 to 6 Jun 2020.
Operation phase Marine Water Quality Monitoring	Completed on 30 June 2025
Continuous Monitoring of Effluent Quality Monitoring	On-going
Waste Management	
Mitigation Measures in Waste Management Plan	On-going
Landfill Gas	
Monthly Monitoring for buildings, manholes and utility pits within the Project Site and along the fresh water mains	On-going
Ecology (Coral)	
Operation phase Regular Coral Monitoring (Monthly)	On-going
Ecology (Fishery)	
Operation phase Regular Fishery Monitoring (Seasonally)	On-going
Landscape	
Operation phase Landscape and Visual Site Inspection	On-going
Environmental Audit	
Site Inspection covering Measures of Air Quality, Water Quality, Waste, Ecological Quality, Fisheries, Landscape and Visual	On-going

1.12. Other than the EM&A work by ET, environmental briefings, trainings, and regular environmental management meetings were conducted, in order to enhance environmental awareness and closely monitor the environmental performance of the contractors.

- 1.13. The EM&A programme has been implemented in accordance with the recommendations presented in the approved EIA Report and the EM&A Manual. A summary of implementation status of the environmental mitigation measures for the operation phase of the Contract during the reporting period is provided in **Appendix B**.

2. WATER QUALITY

- 2.1. In accordance with the recommendations of the EIA, water quality monitoring is required during operation phase. The following Section provides details of the water quality monitoring to be undertaken by the Environmental Team (ET) to verify the distance of sediment and brine plume dispersion and to identify whether the potential exists for any indirect impacts to occur to ecological sensitive receivers.
- 2.2. The water quality monitoring programme was carried out to allow any deteriorating water quality to be readily detected and timely action taken to rectify the situation.
- 2.3. Water quality monitoring for the Contract can be divided into the following stages:
 - (a) Operation phase Marine Water Quality Monitoring – first year upon commissioning
 - (b) Continuous Monitoring of Effluent Quality

WATER QUALITY PARAMETERS

- 2.4. Parameters to be measured in the marine water quality monitoring and the Continuous Monitoring of Effluent Quality are listed in **Table 2.1** and **Table 2.2** respectively.
 - a) Operation phase Marine Water Quality Monitoring
- 2.5. The parameters for the marine water quality monitoring that have been selected for measurement in situ and in the laboratory are those that were either determined in the EIA to be those with the most potential to be affected by the operation works or are a standard check on water quality conditions.

Table 2.1 Parameters measured in the Marine Water Quality Monitoring

Parameters	Unit	Abbreviation
In-situ measurements		
Dissolved oxygen	mg/L	DO
Temperature	°C	-
pH	-	-
Turbidity	NTU	-
Salinity	0/00	-
Total Residual Chlorine	mg/L	TRC
Laboratory measurements		
Suspended Solids	mg/L	SS
Iron-Soluble	mg/L	Fe
Anti-scalant as Reactive Phosphorus*	mg/L	PO ₄ as P-

*Remark: Anti-scalant water quality testing will only be conducted whenever anti-scalant dosage is adopted.

b) Continuous Monitoring of Effluent Quality

- 2.6. The monitoring requirement for the continuous effluent quality monitoring shall be conducted in accordance with the effluent parameters and standards stipulated by the Water Pollution Control Ordinance Discharge License (No.: WT00044188-2023) conditions.

Table 2.2 Parameters measured in the Continuous Monitoring of Effluent Quality

Parameters	Unit	Abbreviation
In-situ measurements		
Temperature	°C	-
pH	pH	-
Salinity	0/00	-
Total Residual Chlorine	mg/L	TRC
Laboratory measurements		
Suspended Solids	mg/L	SS
Iron-Soluble	mg/L	Fe
Total Inorganic Nitrogen	mg/L	-
Total Phosphorus	mg/L	-
Sodium Metabisulphite	mg/L	SMBS
Anti-scalant as Reactive Phosphorus *	mg/L	PO4 as P-

*Remark: Anti-scalant water quality testing will only be conducted whenever anti-scalant dosage is adopted.

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

MONITORING EQUIPMENT

a) Operation phase Marine Water Quality Monitoring

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

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

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

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

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

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

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

Total Residual Chlorine -Total residual chlorine (TRC) shall be measured in-situ using approved test kit.

b) Continuous Monitoring of Effluent Quality

- 2.9. The equipment to be used for the effluent quality monitoring was summarizes in **Table 2.3**.

Table 2.3 Parameters measured in the Continuous Monitoring of Effluent Quality

Equipment	Model
Refrigerated Sampler	Teledyne ISCO 5800
Online sampler for real-time monitoring (Xylem WTW IQ SensorNet system and sensors)	DIQ/S 284-PR: Universal Transmitter to operate up to 4 digital IQ sensors, with PROFIBUS-connection

Equipment	Model
	TetraCon® 700 IQ SW: Digital 4 electrode conductivity cell, in seawater design, suited for heavily polluted water, for use with the IQ SENSOR NET. With integrated temperature sensor
	VisoTurb® 700 IQ SW: Digital turbidity sensor for industrial and seawater applications (ultrasonic cleaning) for use with the IQ SENSOR NET system
	SensoLyt® 700 IQ SW: Robust digital pH/ORP sensor for SensoLyt® SEA/DWA/ECA/PtA pH/ORP electrodes, in sea water design, for use with the IQ SENSOR NET. With built-in pre-amplifier and temperature sensor (NTC), with SensCheck function
	FDO®700 IQ SW: Digital calibration free optical D.O. sensor (universal use). Optimized for measuring and controlling the O2 input in seawater applications, for use with IQ SENSOR NET. Factory calibrated system composed of sensor FDO® 700 IQ SW, membrane cap SCFDO® 700 and protective cap MSK FDO®
	Chlorine 3017M: Online analyzer for photometric measurement of free and total chlorine, according to colorimetric DPD Method (ISO &US EPA); outputs (selectable): 4 to 20 mA or RS 485

Based on Section 5.1.3 of the EM&A Manual, the online sampler for real-time monitoring will be tested before use by HOKLAS-accredited laboratory and will be re-calibrated at monthly intervals throughout the stages of effluent quality monitoring.

SAMPLING / TESTING PROTOCOLS

- 2.10. All in situ monitoring instruments were checked, calibrated, and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme before use, and subsequently re-calibrated at monthly intervals throughout the stages of the water

quality monitoring. Responses of sensors and electrodes were checked with certified standard solutions before each use.

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

LABORATORY MEASUREMENT AND ANALYSIS

a) Operation phase Marine Water Quality Monitoring

- 2.12. Sufficient volume of each water sample was collected for carrying out the laboratory analyses. Using chain of custody forms, collected water samples were transferred to a HOKLAS accredited laboratory (Acumen Laboratory and Testing Limit - HOKLAS 241) for immediate processing. The determination work was start within the next working day after collection of the water samples. Analytical methodology and sample preservation of other parameters were based on the latest edition of Standard Methods for the Examination of Waste and Wastewater published by APHA, AWWA and WPCF and methods by USEPA, or suitable method in accordance with requirements of HOKLAS or another internationally accredited scheme. The QA/QC details were in accordance with the requirements of HOKLAS or another internationally accredited scheme.
- 2.13. Parameters for laboratory measurements, standard methods and detection limits are presented in **Table 2.4**.

Table 2.4 Laboratory measurements, standard methods, and corresponding detection limits of marine water quality monitoring

Parameters	Standard Methods	Detection Limit	Reporting Limit	Precision
Dissolved oxygen	Instrumental, CTD	0.1	-	±25%
Temperature	Instrumental, CTD	0.1	-	±25%
pH	Instrumental, CTD	0.1	-	±25%
Turbidity	Instrumental, CTD	0.1	-	±25%
Salinity	Instrumental, CTD	0.1	-	±25%
Suspended Solids	APHA 23 rd Ed 2540D	1.0	2.5	±17%
Iron	APHA 3111 B	0.2	-	±25%
Total residual chlorine	APHA 4500CL: G	0.01mg/L	-	±25%
Anti-scalant*	Content acrylic polymers determination method	5 mg/L	-	-

*Remark: A proposal for update anti-scalant monitoring under the operation phase EM&A programme is proposed via email on 27 May 2024. EPD has agreed to update the anti-scalant monitoring detection limit, action and limit level from 0.2 mg/L to 5.0 mg/L (EPD ref. ()In EP 2/N8/E/120 Pt.14).

b) Continuous Monitoring of Effluent Quality

2.14. Analyses of the sample shall be carried out using American Public Health Association Standard Method for the Examination of Water and Wastewater or other internationally accepted standard methods proposed by the Licensee and approved by the Authority which could achieve the monitoring requirement.

Table 2.5 Measurements Methods for Continuous Monitoring of Effluent Quality

Parameters	Standard Methods
Flow Rate (m3 / day)	In-house method
Temperature(°C)	Instrumental
Salinity (‰)	Instrumental
pH (pH units)	Instrumental
Suspended Solids (mg / L)	APHA 2540E
Iron (mg / L)	APHA 3111 B
Total Inorganic Nitrogen (mg / L)	In-house method
Total Phosphorous (mg / L)	In-house method
Total Residual Chlorine	APHA 4500CL: G
Sodium Metabisulphite	--
Anti-scalant 'ACUMER' 4035*	

*Remark: Anti-scalant water quality testing will only be conducted whenever anti-scalant dosage is adopted.

MONITORING LOCATION

a) Operation phase Marine Water Quality Monitoring

2.15. The operation phase water quality monitoring locations are in accordance with the EM&A Manual and detailed in **Table 2.6** below. A schedule for water quality monitoring was prepared by the ET and submitted to IEC and EPD prior to the commencement of the monitoring.

Table 2.6 Location of Water Quality Monitoring Stations

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

- 2.16. WSR1 to WSR37 were identified in accordance with Annex 14 of the EIAO-TM as well as Clause 3.4.4.2 of the Environmental Impact Assessment Study Brief for Desalination Plant at Tseung Kwan O (No. ESB-266/2013). WSR1 to WSR3 are sited near the Tung Lung Chau Fish Culture Zone; WSR16 and WSR36 are sited near the coral assemblages along the coastlines of Fat Tong Chau and Kwun Tsai respectively; WSR 4 and WSR33 are sited near the Coastal Protection Area and coral assemblages in waters of Tai Miu Wan; WSR37 is sited near the fisheries resource including spawning and nursery grounds at the coastal water of Tit Cham Chau. NF1 to NF3 are the Edge of Mixing zone.

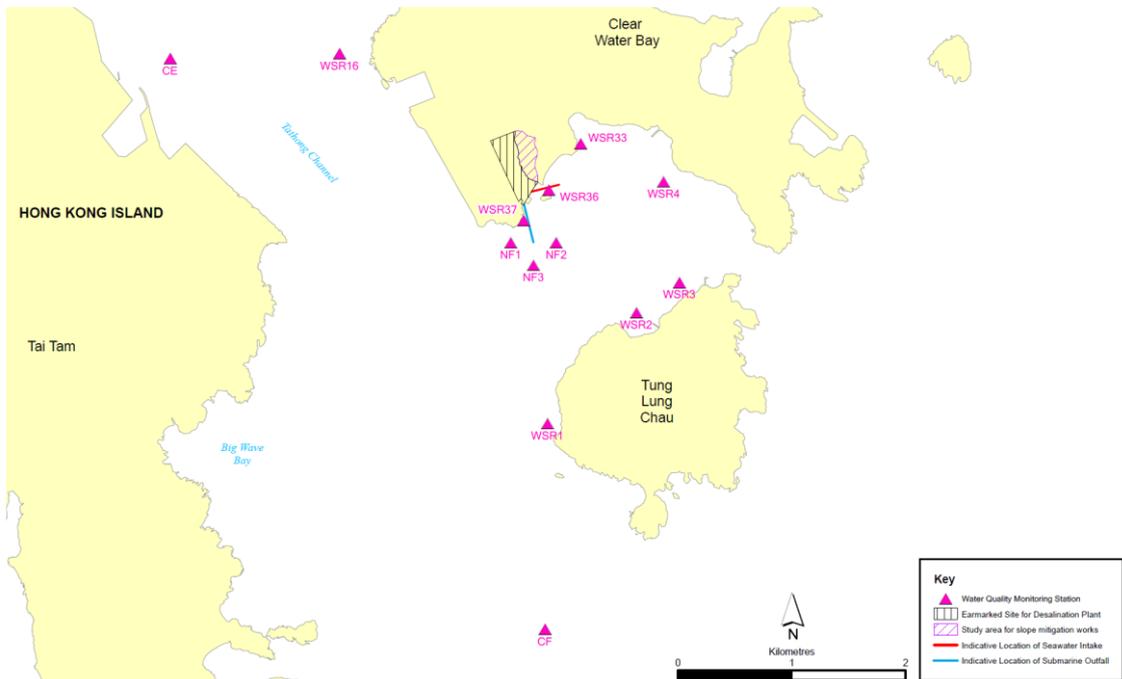


Figure 2.1 Water Quality Monitoring Locations under EM&A Manual

b) Continuous Monitoring of Effluent Quality

2.17. In accordance with the discharge license, the Continuous Monitoring shall be sampling at Brine Outfall Shaft.

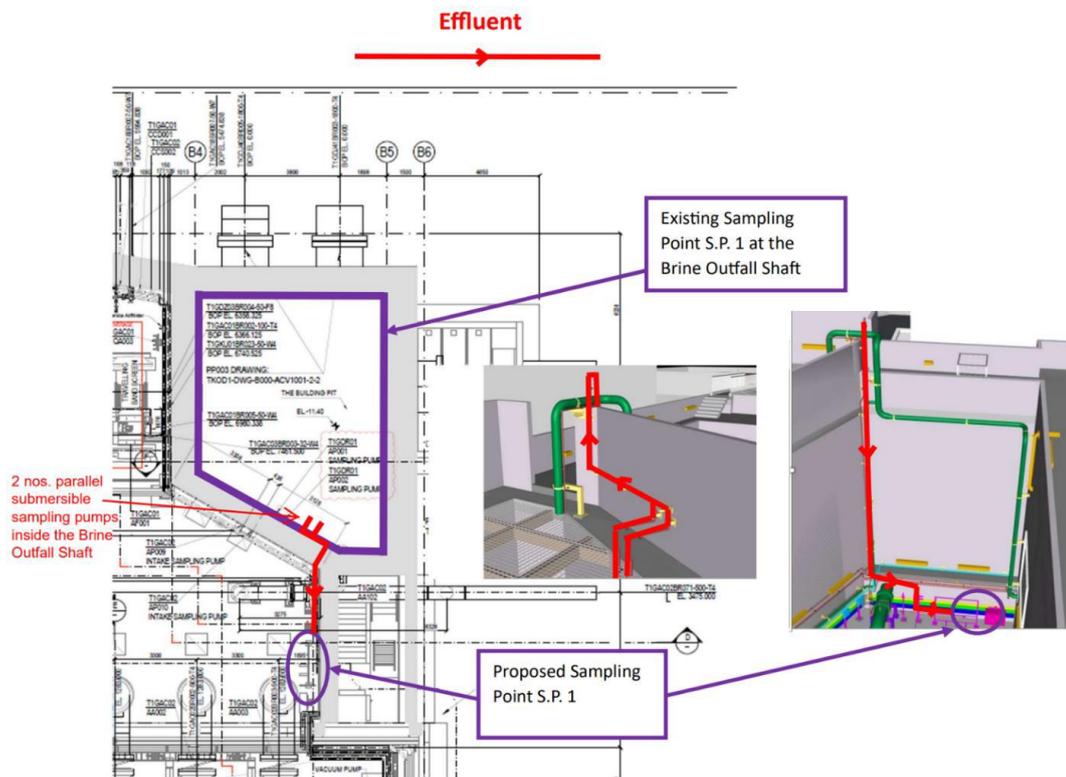


Figure 2.2 Continuous Monitoring locations

SAMPLING FREQUENCY

a) 1st Year Operation Marine Water Quality Monitoring

2.18. Water quality monitoring was carried out three days per week during the operation phase. Monitoring at each station was undertaken once per day. The interval between two sets of monitoring was not less than 36 hours. The monitoring frequency would be increased in the case of exceedances of Action/Limit Levels if considered necessary by ET. Monitoring frequency would be maintained as far as practicable.

b) Continuous Monitoring of Effluent Quality

2.19. The effluent should be collected in a full 24-hour period. Twenty four-hour flow-weighted composite effluent sample for subsequent chemical analysis and testing should be prepared by the following procedures:

- Collect effluent sub-sample at bi-hourly interval over a 24 hour period
- Obtain flow record of the Project for the 24-hour sampling period
- Calculate the volume of each sub-sample for preparation of flow-weighted composite sample
- Transfer the appropriate volume of sub-samples to a clean container and mix thoroughly

SAMPLING DEPTHS & REPLICATION

a) 1st Year Operation Marine Water Quality Monitoring

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

b) Continuous Monitoring of Effluent Quality

2.21. The effluent sampling should be planned carefully to ensure appropriate volume of effluent sub-samples is collected to prepare sufficient amount of flow-weighted composite effluent sample for carrying out subsequent chemical analysis and testing.

ACTION AND LIMIT LEVELS

2.22. The Action and Limit Levels have been set based on the derivation criteria specified in the EM&A Manual. The Action/Limit Levels have been derived and are presented in **Table 2.7 and Table 2.8**.

a) Operation phase Marine Water Quality Monitoring

Table 2.7 Derived Action and Limit Levels for Water Quality

Parameters	Action	Limit
Operation phase Marine Water Quality Monitoring		
DO in mg/L	<u>Surface and Middle</u> 7.30 mg L ⁻¹ <u>Bottom</u> 7.31 mg L ⁻¹ <u>Tung Lung Chau Fish Culture Zone</u> 5.1 mgL ⁻¹ or level at control station (Whichever the lower)	<u>Surface and Middle</u> 4 mg L ⁻¹ <u>Bottom</u> 2 mg L ⁻¹ <u>Tung Lung Chau Fish Culture Zone</u> 5.0 mgL ⁻¹ or level at control station (Whichever the lower)
SS in mg/L (Depth-averaged)	5.00 mg L ⁻¹ or 20% exceedance of value at any impact station compared with corresponding data from control station	6.00 mg L ⁻¹ or 30% exceedance of value at any impact station compared with corresponding data from control station
Turbidity in NTU (Depth-averaged)	2.41 NTU or 20% exceedance of value at any impact station compared with corresponding data from control station	2.84 NTU or 30% exceedance of value at any impact station compared with corresponding data from control station
Salinity in PSU (Depth-averaged)	34.25 PSU or 9% exceedance of value at any impact station compared with corresponding data from control station	34.56 PSU or 10% exceedance of value at any impact station compared with corresponding data from control station
Iron in mg/L (Depth-averaged)	0.3 mg/L	0.3 mg/L
Total residual chlorine in mg/L	0.01 mg/L	0.01 mg/L
*Anti-scalant in mg/L (Depth-averaged)	5.0 mg/L	5.0 mg/L

Notes:

- i. "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths.
- ii. For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.
- iii. For Turbidity, SS, iron and Salinity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
- iv. *A proposal for update anti-scalant monitoring under the operation phase EM&A programme is proposed via email on 27 May 2024. EPD has agreed to update the anti-scalant monitoring detection limit, action and limit level from 0.2 mg/L to 5.0 mg/L (EPD ref. Q) in EP 2/N8/E/120 Pt.14).

b) Continuous Monitoring of Effluent Quality

Table 2.8 Derived Limit Levels for Water Quality

Parameters	Limit
Continuous Monitoring of Effluent Quality	
Flow Rate in m ³ /day	216841
Temperature in °C	Maximum 40
Salinity	71347
SS in mg/L	13
pH	6-9
Iron in mg/L	0.6
Total residual chlorine in mg/L	0.1
Total Inorganic Nitrogen in mg/L	2
Total Phosphorous in mg/L	1
Sodium Metabisulphite in mg/L	0.5
Anti scalant in mg/L*	2.2

*Remark:

- 1. Anti-scalant water quality testing will only be conducted whenever anti-scalant dosage is adopted.

MONITORING RESULTS AND OBSERVATIONS

2.23. According to the contractor's information, the Anti-scalant dosage commenced on 10 April 2025. The Anti-scalant water quality test was also conducted starting from the same date.

a) Operation phase Marine Water Quality Monitoring

2.24. The operation phase of Tseung Kwan O Desalination Plant was commenced on 1 July 2024. The first-year operation phase marine water quality monitoring was completed on 30 June 2025. No marine water quality monitoring was conducted during the reporting period.

b) Continuous Monitoring of Effluent Quality

2.25. Continuous Monitoring of Effluent Quality was conducted sampling point in the reporting month. No exceedance of the sampling was obtained during the reporting period. The detailed results are summarized in **Table 2.9**, and presented in **Appendix F**.

Table 2.9 Summary of Continuous Effluent Monitoring Results

	Sal (ppt)	pH	Temp (°C)	Total Residual Chlorine (mg/L)	Suspended Solids (mg/L)	Total Inorganic Nitrogen (mg/L)	Total Phosphorus (mg/L)	*Sodium Metabisulphite (mg/L)	Iron (mg/L)	*Anti scalant (mg/L)
Avg.	57.73	8.01	26.04	0.03	6	0.52	0.04	<2	0.1	<5
Min.	54.05	7.50	25.10	0.01	2	0.02	0.01	<2	0.1	<5
Max.	59.00	8.80	26.80	0.06	3	0.36	0.01	<2	0.1	<5

* Remark:

(1) Due to the limitation of the laboratory, the lowest result for Sodium Metabisulphite will only be shown as < 2 mg/L.

(2) Due to the limitation of the laboratory, the lowest result for Anti-scalant will only be shown as < 5 mg/L.

(3) According to the contractor, water production ceased on 14 August 2025 due to WSD maintenance works and continuous monitoring of effluent quality was discontinued on 15 August 2025.

3. WASTE

3.1. The waste generated from this Contract includes inert construction and demolition (C&D) materials, and non-inert C&D materials. Non-inert C&D materials are made up of general refuse, vegetative wastes and recyclable wastes such as plastics and paper/cardboard packaging waste. Steel materials generated from the Contract are also grouped into non-inert C&D materials as the materials were not disposed of with other inert C&D materials. With reference to relevant handling records and trip tickets of this Contract, the quantities of different types of waste generated in the reporting month are summarized in **Table 3.1**. Details of cumulative waste management data are presented as a waste flow table in **Appendix G**.

Table 3.1 Quantities of Waste Generated from the Contract during the reporting period

Reporting Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / cardboard packaging	Plastics ⁽¹⁾	Chemical Waste	Others, e.g., general refuse
	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)
Aug 2025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	27.340

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

3.2. No dewater sludge was generated by the operation in the reporting period.

4. LANDFILL GAS MONITORING

MONITORING REQUIREMENT

- 4.1. In accordance with Section 11 of the EM&A Manual, monthly monitoring of landfill gas is required for the first year of operation at buildings within the Project Site and consultation zone. Part of the desalination plant and the indicative area of natural slope mitigation works fall within the SENT Landfill Extension Consultation Zone; and part of the 1,200 mm diameter freshwater mains along Wan Po Road falls within the SENT Landfill and SENT Landfill Extension Consultation Zones, TKO Stage II/III Restored Landfill and TKO Stage I Restored Landfill Consultation Zones.
- 4.2. Routine monitoring is required at buildings within the Project Site and consultation zones. The monitoring frequency will be monthly for the first year of operation.
- 4.3. For the manholes and utility pits within the Project Site and along the fresh water mains, each manhole/ utility pit should be monitored with two measurements (at mid depth and base). Each measurement should be monitored for a minimum of 10 minutes. A steady reading and peak reading should be recorded at each manhole/ utility pit and for each measurement.
- 4.4. Monitoring of oxygen, methane, carbon dioxide and barometric pressure would be performed monthly during the operation phase.

MONITORING LOCATION

- 4.5. The area required to be monitored for landfill gas in the reporting period is shown in **Figure 4.1, Figure 4.2 and Figure 4.3.**

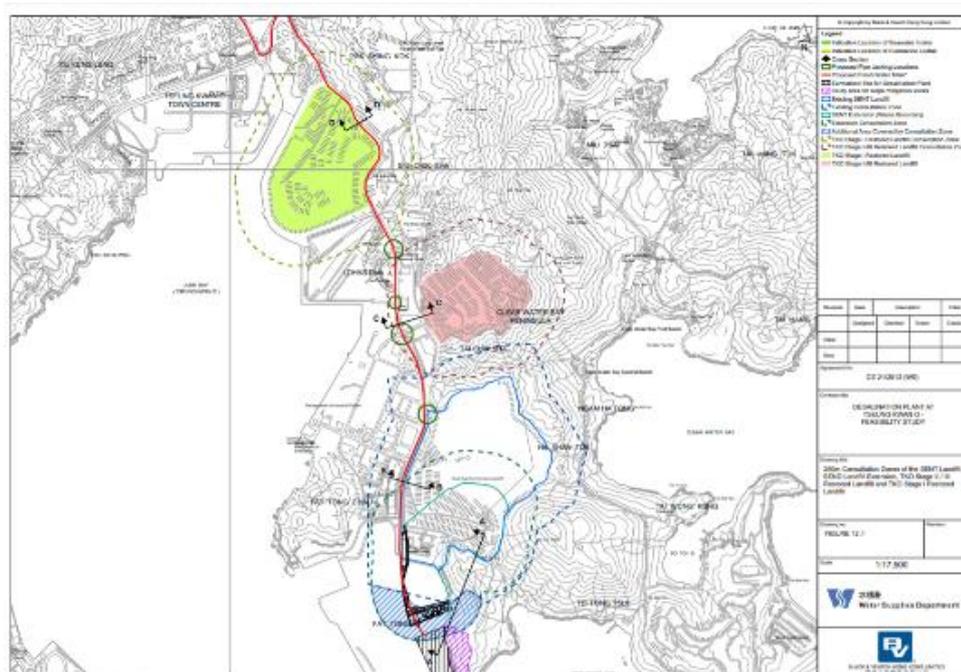


Figure 4.1 Overview of the SENT Extension Consultation Zone and the Contract Site Area

MONITORING PARAMETERS

4.6. The landfill gas monitoring parameters and the action and limit level are summarized in **Table 4.1**.

Table 4.1 Action and Limit Level for Landfill Gas Monitoring Equipment

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

MONITORING EQUIPMENT

4.7. Landfill Gas monitoring was carried out using intrinsically-safe, portable multi-gas monitoring instruments. The gas monitoring equipment is:

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

methane	0-100% LOWER EXPLOSION LIMIT (LEL) AND 0-100% v/v;
oxygen	0-25% v/v;
carbon dioxide	0-5% v/v; and
barometric pressure	mBar (absolute)

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

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

4.8. Monitoring equipment used in the reporting period are summarized in **Table 4.2**. The Landfill Gas monitoring equipment calibration certificate is presented in **Appendix E**.

Table 4.2 Landfill Gas Monitoring Equipment

Equipment	Brand and Model	Calibration Expiry Date
Portable Gas Detector	Altair 5X	22-May-2026

MONITORING RESULTS AND OBSERVATIONS

- 4.9. In this reporting period, monthly landfill gas monitoring was conducted on [14 and 15 August 2025](#). No exceedances of action level and limit level was observed. The detail of result was presented in **Appendix F**.

5. LANDSCAPE

MONITORING REQUIREMENTS

- 5.1. In accordance with Section 8.1 of the EM&A Manual, weekly site audit shall be carried out by the ET include checking whether good site practices are being properly implemented by the Contractor and the extent of the works area within the Clear Water Bay Country Park should be checked by the ET during the weekly site audit.

SITE INSPECTION

- 5.2. Weekly site audit was carried out by the ET in the reporting month, no trespass by the Contractor outside the works area of the Project and Clear Water Bay Country Park, and no damage to the vegetation and rocky shore outside the Project area was observed in the reporting month. All plants were observed to be in satisfactory condition in the reporting month.
- 5.3. If non-compliance were found during the operation phase, the actions in accordance with the Event and Action Plan will be carried out according to **Appendix D**.

6. ECOLOGY (CORAL MONITORING)

6.1. Under the approval conditions of the EIA Report for the Project, an EM&A programme on coral for the operation phase of the Project is recommended. Pursuant to these EIA approval conditions and Condition 3.1 of the EP and FEP, details of the regular coral monitoring programme have been proposed based on the baseline coral monitoring results in the Report on operation Baseline Coral Monitoring and Regular Coral Monitoring Methodology.

MONITORING LOCATION

6.2. In accordance with Appendix B Section 5.1 of the approved supplementary EM&A Manual, two indirect impact sites (C2 and C3) and one control site (C8) as shown in **Figure 6.1** should be monitored during the operation Phase. Operation coral survey should be conducted at the indirect impact and control sites. Ten selected hard coral colonies with similar species should be tagged at each of the control and indirect impact sites before commencement of the operation phase. Tagged hard coral colonies should be monitored in open waters during the operation phase.

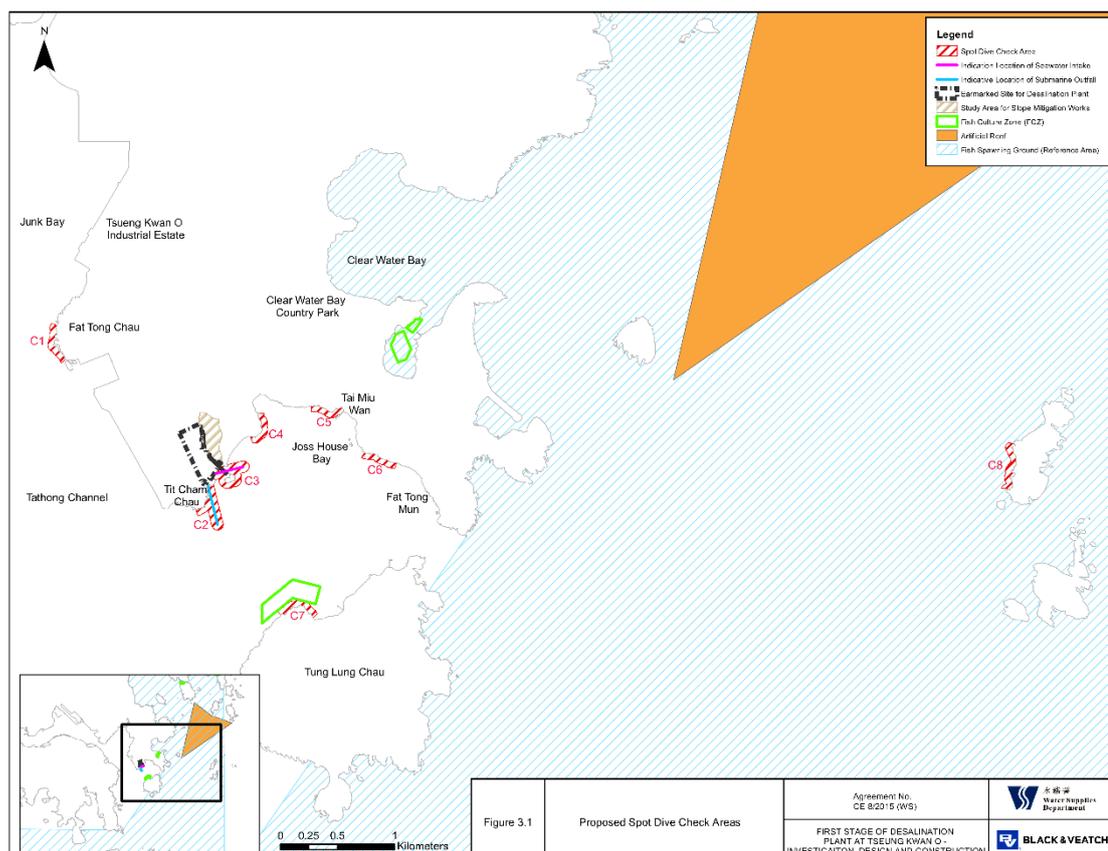


Figure 6.1 Spot Dive Check Areas Two Proposed Indirect Impact Sites (C2 and C3) and one control site (C8) during Operation Phase

ACTION AND LIMIT LEVELS

6.3. The Action and Limit Levels have been set based on the derivation criteria specified in the EM&A Manual. The Action/Limit Levels have been derived and are presented in **Table 6.1**.

Table 6.1 Action and Limit Level for Coral Monitoring Equipment

Parameter	Action Level Definition	Limit Level Definition
Mortality	If during Impact Monitoring a 15% increase in the percentage of partial mortality on the corals occurs at more than 20% of the tagged indirect impact site coral colonies that is not recorded on the tagged corals at the control site, then the Action Level is exceeded	If during Impact Monitoring a 25% increase in the percentage of partial mortality on the corals occurs at more than 20% of the tagged indirect impact site coral colonies that is not recorded on the tagged corals at the control site, then the Limit Level is exceeded

Note: If the defined Action Level or Limit Level for coral monitoring is exceeded, the actions as set out in **Appendix D, Table D3** will be implemented.

- 6.4. If non-compliance were found during the operation works, the actions in accordance with the Event and Action Plan will be carried out according to **Appendix D**.

MONITORING FREQUENCY

- 6.5. Operation phase coral monitoring shall be monitored once per month as the requirement of the first year of operational phase.

MONITORING RESULT AND OBSERVATION

- 6.6. Operation phase coral monitoring works was conducted on **21 August 2025**. A total of 30 tagged coral colonies (10 at control site and 20 and two indirect impact sites) were monitored. 3 coral colonies with mortality in Site C3 were recorded, missing coral #6 at Site C8 was replaced by another new coral colony (*Acropora solitaryensis*), all other coral colonies were good in general. The detail of the monitoring is presented in **Appendix H**.

7. ECOLOGY (FISHERY MONITORING)

7.1. The purpose of the operation phase regular fisheries monitoring programme is to monitor the potential impacts on fisheries resources in the vicinity of the project site. Apart from the regular fisheries monitoring programme, a water quality monitoring programme in addition to the water quality monitoring programme in the approved EM&A Manual is also described in Section 2.4 to (i) provide supplementary information in the interpretation of the findings of the fisheries monitoring and (ii) assist the monitoring of the potential impact on the Tung Lung Chau Fish Culture Zone (FCZ) in Joss House Bay.

MONITORING LOCATION

- 7.2. In accordance with Section 2.3 of the approved Methodology Paper on Regular Fisheries Monitoring, it is recommended to set up six (6) fisheries monitoring locations in Joss House Bay and its vicinity to monitor the fisheries resources.
- 7.3. Two (2) sampling locations are set up in close proximity of the direct footprint of the proposed submarine utilities around TKO Area 137. These sampling locations represent the potential Project impact zones (i.e. areas at and in close proximity to the footprint of the proposed submarine utilities that will be directly affected by the Project works).
- 7.4. Two (2) gradient locations are proposed between the proposed submarine utilities and Tung Lung Chau FCZ to assist in the interpretation and identification of any potential fisheries impact in the vicinity of the FCZ.
- 7.5. Two (2) reference locations are proposed in the outer Joss House Bay between the waters of Tung Lung Chau and Fat Tong Mun. These reference locations are further away and will not be affected by the Project discharge (based on the EIA prediction) and will serve as control stations. Any significant fisheries impact identified at the reference locations should be caused by other natural factors or non-Project activities. The trends of fisheries conditions recorded in the reference locations will be used to assist in the interpretation of the trends of fisheries impact identified in the impact and gradient locations.
- 7.6. The coordinates of the proposed monitoring locations are shown in **Figure 7.1**.

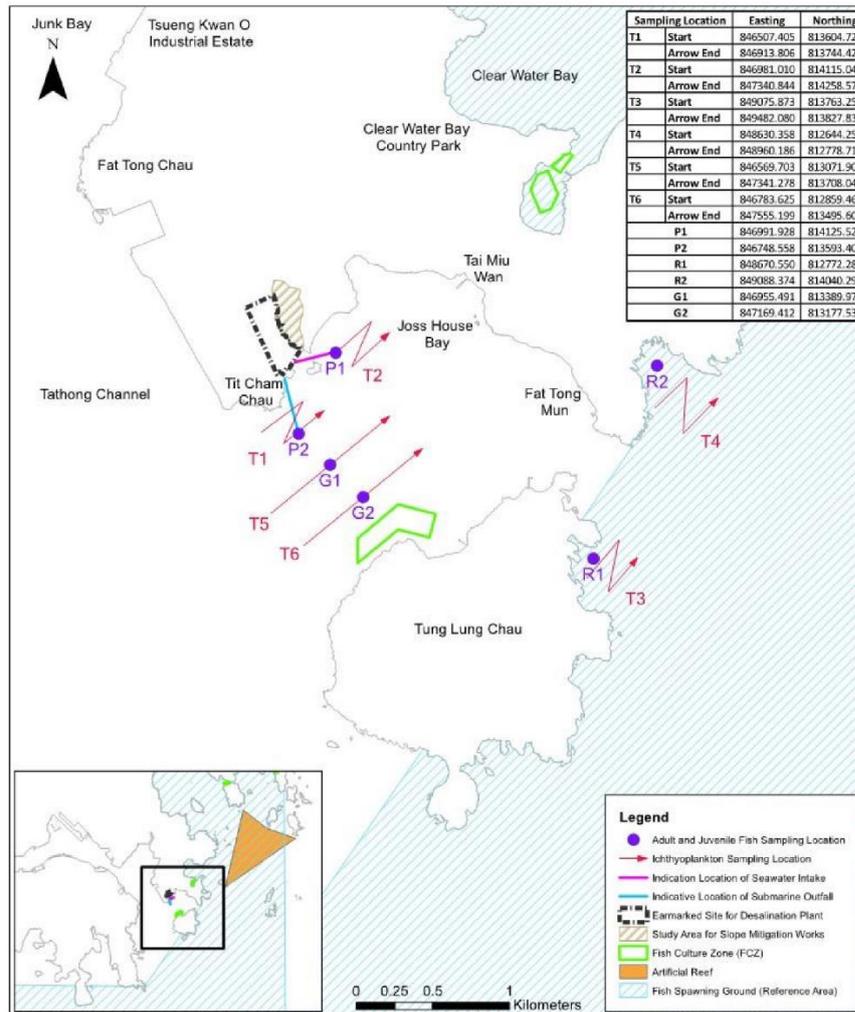


Figure 7.1 Monitoring Location of Regular Fishery Monitoring during Operation Phase

MONITORING FREQUENCY

7.7. Operation phase fishery monitoring shall be carried out 2 times in wet season (April to October) and 2 times in dry season (December to March) to examine the following:

- Fish species composition;
- Abundance: number of fish captured;
- Diversity of fish resources: species diversity and evenness;
- Size: range of total length; Biomass in weight; and
- Values of catches of commercial species: catch per unit effort (CPUE) and yield per unit effort (YPUE).

MONITORING RESULT AND OBSERVATION

7.8. Operation phase fishery monitoring for wet season 2025 was carried out on 16 and 23 August 2025. Details of the survey report will be provided once available.

8. SUMMARY OF EXCEEDANCE, COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS

8.1. The Environmental Complaint Handling Procedure is shown in below **Figure 9.1**:

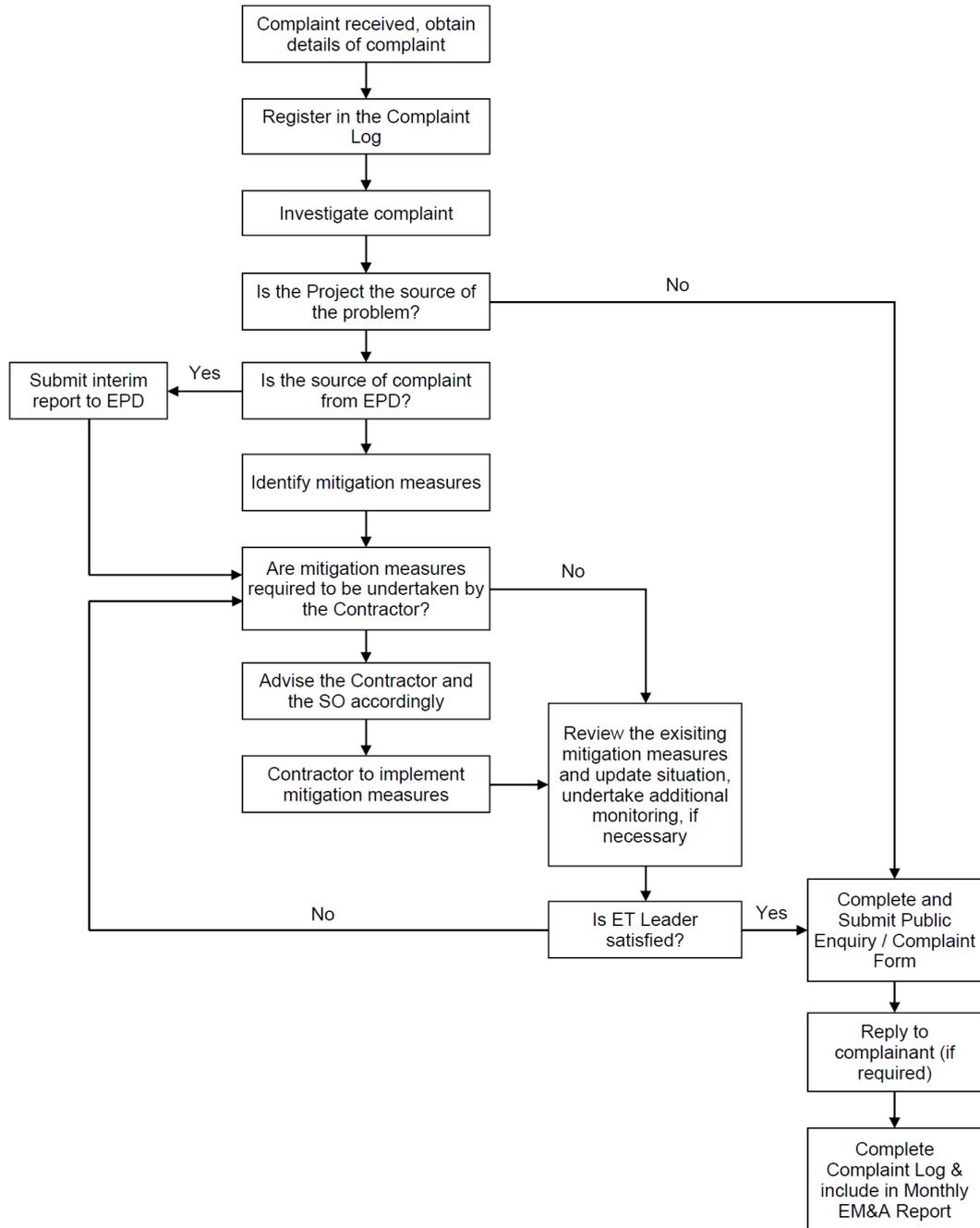


Figure 9.1 Environmental Complaint Handling Procedures

- 8.2. The first-year operation phase marine water quality monitoring was completed on 30 June 2025. No marine water quality monitoring was conducted during the reporting period.
- 8.3. Continuous Monitoring of Effluent Quality was conducted sampling point in the reporting month. No exceedance of the sampling was obtained during the reporting period.
- 8.4. Operation phase coral monitoring works was conducted on [21 August 2025](#). There is no AL/LL exceedance during the monitoring period. The detail of the monitoring was presented in **Appendix H**.
- 8.5. Operation phase fishery monitoring for wet season 2025 was carried out on [16 and 23 August 2025](#). Details of the survey report will be provided once available.
- 8.6. In this reporting period, monthly landfill gas monitoring was conducted on [14 and 15 August 2025](#). No exceedances of action level and limit level was observed.
- 8.7. **No** environmental complaint, notification of summons and prosecution Statistics on complaint and notification of summons and prosecution are summarized in **Appendix J**.

9. EM&A SITE INSPECTION

- 9.1. Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting period, site inspections were carried out on **7, 14 and 28 August 2025** at the site portions listed in **Table 9.1** below.

Table 9.1 Summaries of Site Inspection Record

Date	Inspected Site Portion	Time
7 August 2025	TKO Area 137	9:30 – 10:30
14 August 2025	TKO Area 137	9:30 – 10:30
28 August 2025	TKO Area 137	9:30 – 10:30

- 9.2. Joint site inspections with IEC were carried out on **28 August 2025**.
- 9.3. According to the approved proposal to change the operation phase EM&A programme for the 2nd to 10th years, site inspection will be conducted on a bi-weekly basis starting from **15 August 2025**.
- 9.4. No Environmental deficiencies were observed during site inspection. The site inspections during the reporting period are summarized in **Table 9.2**.

Table 9.2 Site Observations

Date	Environmental Observations	Follow-up Status
7 August 2025	No major environmental deficiency was observed.	N/A
14 August 2025	No major environmental deficiency was observed.	N/A
28 August 2025	No major environmental deficiency was observed.	N/A

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

10. FUTURE KEY ISSUES

10.1. Works to be undertaken in the next reporting month are:

- Potable Water Production

10.2. The major environmental impacts brought by the above operation works include:

- Effluent of the water production work and system cleaning works;
- Waste generation from the operation activities

10.3. The key environmental mitigation measures implemented for the Contract in this reporting period associated with the above operation works include:

- Regularly monitoring of the effluent
- Sorting and storage of general refuse and operation waste

11. CONCLUSIONS AND RECOMMENDATIONS

- 11.1. This is the 14th Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 1 August to 31 August 2025, in accordance with the EM&A Manual and the requirement under FEP-01/503/2015/B.
- 11.2. The first-year operation phase marine water quality monitoring was completed on 30 June 2025. No marine water quality monitoring was conducted during the reporting period.
- 11.3. Continuous Monitoring of Effluent Quality was conducted sampling point in the reporting month. No exceedance of the sampling was obtained during the reporting period.
- 11.4. According to the approved proposal to change the operation phase EM&A programme for the 2nd to 10th years, continuous monitoring of effluent quality was discontinued and replaced with effluent water monitoring in compliance with discharge license requirements starting from 15 August 2025.
- 11.5. Operation phase coral monitoring works was conducted on 21 August 2025. There is no AL/LL exceedance during the monitoring period.
- 11.6. Operation phase fishery monitoring for wet season 2025 was carried out on 16 and 23 August 2025. Details of the survey report will be provided once available.
- 11.7. In this reporting period, monthly landfill gas monitoring was conducted on 14 and 15 August 2025. No exceedances of action level and limit level was observed.
- 11.8. Environmental site inspections were conducted during the reporting period. Observations and reminders were reported during the site inspections. All items are rectified within the reporting period. The environmental performance of the project was therefore considered satisfactory.
- 11.9. According to the approved proposal to change the operation phase EM&A programme for the 2nd to 10th years, site inspection will be conducted on a bi-weekly basis starting from 15 August 2025.
- 11.10. No environmental complaints, notification of summons and prosecution was received in the reporting period.
- 11.11. The ET will keep track on the operation works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Appendix A

Overview of Desalination Plant in Tseung Kwan O

LEGEND:

- BOUNDARY OF SEMI LANDFILL EXTENSION
- BOUNDARY OF WORKS AREA FOR TKO DESALINATION PLANT
- SITE PHASING
- ALLOCATED LAND BOUNDARIES

NOTE: TEMPORARY WORKS AREA 1 WILL BE HANDED OVER AT +6 MPD WITH A TOLERANCE OF ±500mm.

Revision	Date	Description	Initial
B	10/03	UPDATE NOTES	YLC
A	07/18	UPDATE COORDINATES	YLC
	Designed	Checked	Drawn
Initial	YLC	CKH	SZ
Date	02/18	02/18	02/18

Approved
Christina Go

Agreement No. CE 8/2015 (WS)

Contract No. 13/WSD/17

Contract Title
DESIGN, BUILD AND OPERATE FIRST STAGE OF TSEUNG KWAN O DESALINATION PLANT

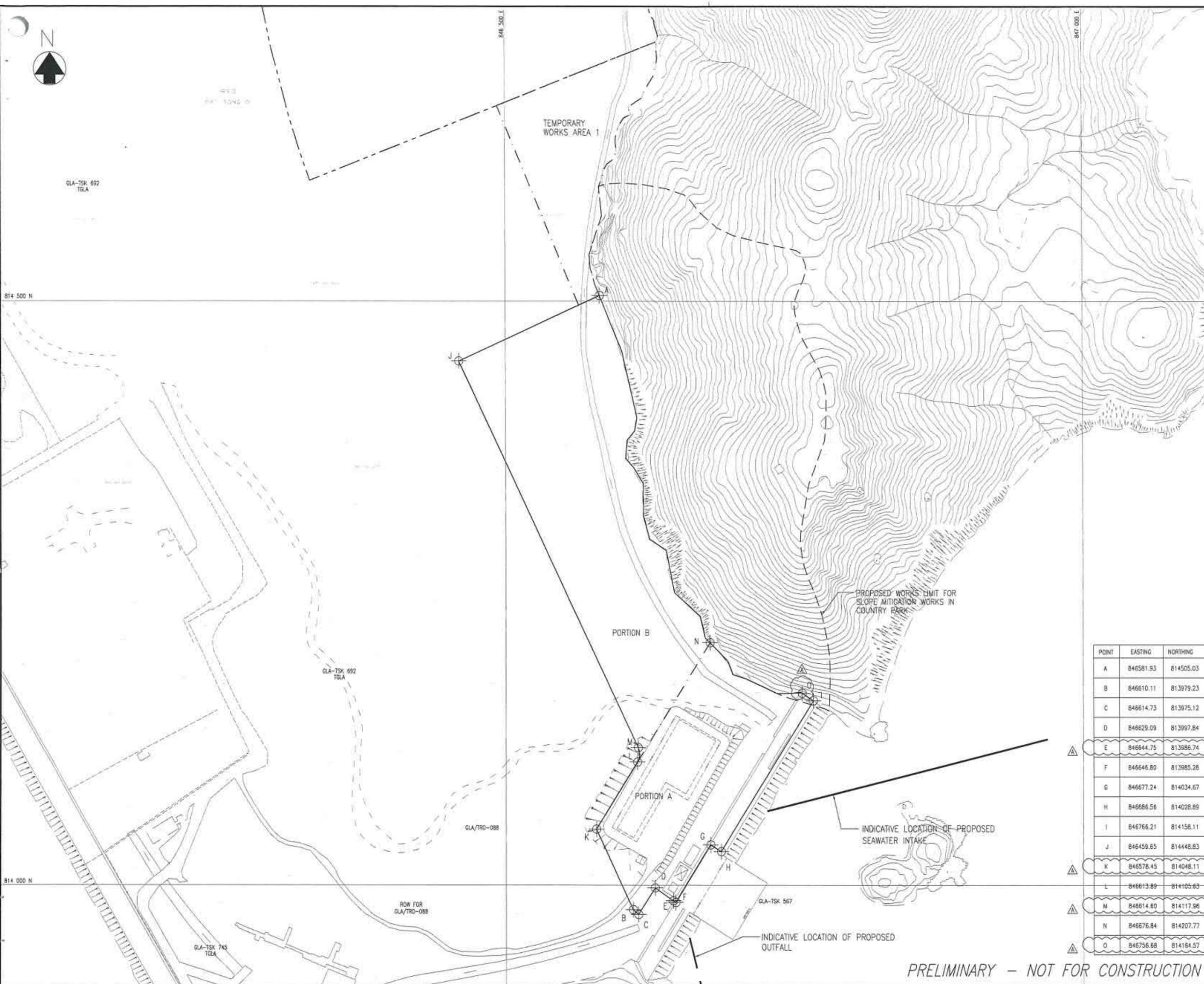
Drawing Title
SITE HANDOVER WORKS AREAS

Drawing No. 190495/K/TEND/10/0003

Scale A1 1 : 1500
A3 1 : 3000



BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司



POINT	EASTING	NORTHING
A	846581.93	814505.03
B	846610.11	813979.23
C	846614.73	813975.12
D	846629.09	813997.84
E	846644.75	813986.74
F	846646.80	813985.28
G	846677.24	814034.67
H	846686.56	814028.89
I	846766.21	814158.11
J	846459.65	814448.83
K	846578.45	814048.11
L	846613.89	814105.63
M	846614.60	814117.96
N	846676.84	814207.77
O	846756.68	814164.57

PRELIMINARY - NOT FOR CONSTRUCTION

BUILDINGS IN FIRST STAGE

CODE	NAME OF BUILDING	TOTAL G.F.A. (m ²)	SITE COVERAGE (m ²)
B	COMBINE SHAFT	759,876	759,876
C	ACTIDAFF	1027,547	545,346
G	REVERSE OSMOSIS BUILDING AND ELECTRICAL BUILDING	451,455	536,935
H	CO2 TANKS AREA	-	-
J	PRODUCT WATER STORAGE TANK, PUMP STATION AND ELECTRICAL BUILDING	1974,610	2933,980
K	SLUDGE TREATMENT BUILDING, TANK AND PUMP ROOM	2531,044	1228,361
M	ADMINISTRATION BUILDING & ELECTRICAL BUILDING C	2450,713	1114,062
N	MAIN ELECTRICAL AND CENTRAL CHILLER PLANT BUILDING	-	499,893
R1	ELECTROCHLORINATION BUILDING & ELECTRICAL BUILDING A	657,992	825,776
S	132 KV SUBSTATION	-	943,560
T	IRRIGATION WATER TANK AND PUMP ROOM	-	156,148
R2	CHEMICAL BUILDING	813,056	813,056
V	VISITOR GALLERY	1330,410	1330,410
X1	GUARD HOUSE AND FS CONTROL ROOM	39,585	39,585
X2	GUARD HOUSE	22,035	22,035
Y	R + D OUTDOOR	-	-
Z	WASTE WATER TREATMENT PLANT	48,000	48,000
TOTAL =		25175,323	21496,023

LEGEND / ABBREVIATION

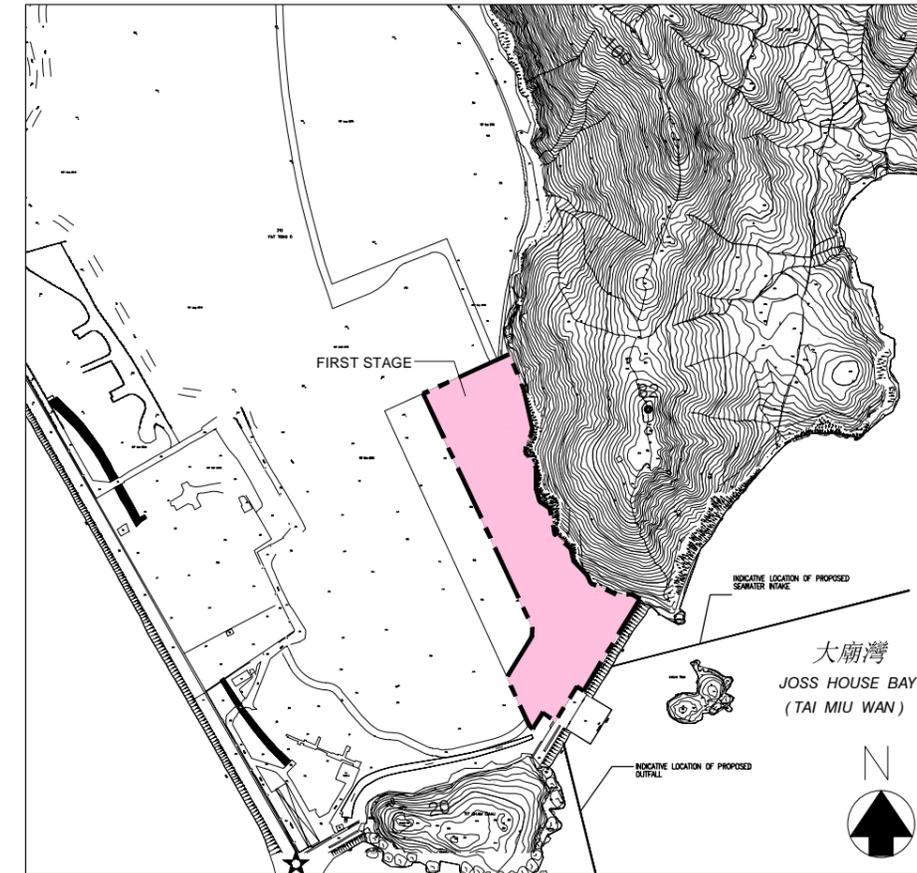
- H.L. WINDOW HIGH LEVEL WINDOW
- M.L. METAL LOUVRES
- C.L. CAT LADDER
- A.U.T. ACCESSIBLE UNISEX TOILET
- ⊕ PROPOSED FINISH FLOOR LEVEL IN METER ABOVE P.D.
- ⊖ STRUCTURAL FLOOR LEVEL IN METER ABOVE P.D.
- M.V.I.A.L. MECHANICAL VENTILATION & ARTIFICIAL LIGHTING
- F.E. 4.5kg CO₂ FIRE EXTINGUISHER
- H.R. HOSE REEL
- ⊙ FIREMAN'S LIFT
- ⊕ LIFT FOR THE BARRIER FREE ACCESS
- P.D. PIPE DUCT

PLOT RATIO & SITE COVERAGE CALCULATION:

SITE AREA OF THE FIRST STAGE	=	56108 m ²
TOTAL G.F.A.	=	25175.323 m ²
TOTAL SITE COVERAGE	=	21496.023 m ²
PLOT RATIO	=	25092.141 / 56108
	=	0.447 < PERMITTED
SITE COVERAGE	=	21414.841 / 56108 x 100
	=	38.167%

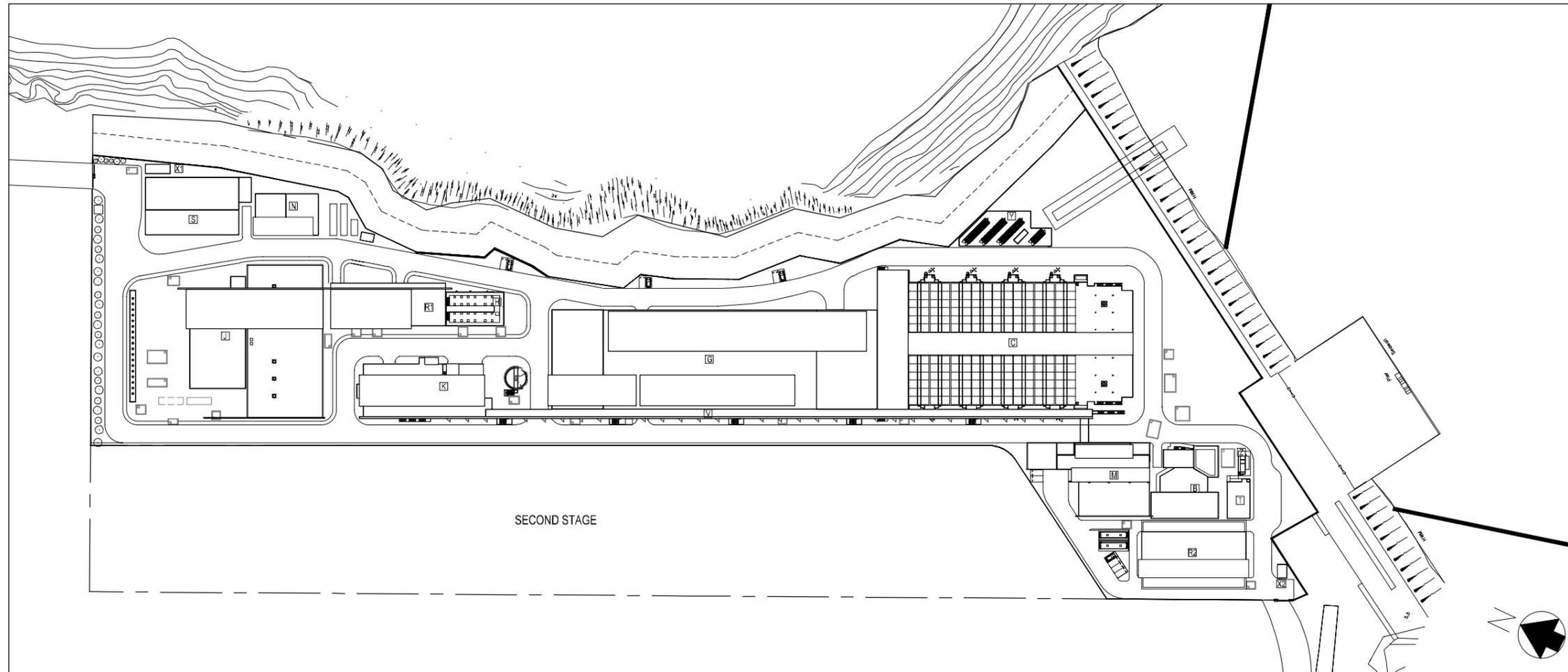
SITE LOCATION PLAN

1 : 5000



FIRST STAGE OF TSEUNG KWAN O DESALINATION PLANT

1 : 1000



0	TENDER SUBMISSION	CAD	JAN 19
Rev	Description	By	Date
Employer			
Employer's Consultant			
Tenderer			
Designer			
Project title			
CONTRACT NO. 13/WSD/17			
DESIGN, BUILD AND OPERATE FIRST STAGE OF TSEUNG KWAN O DESALINATION PLANT			
Drawing title			
ARCHITECTURAL – PLOT RATIO AND SITE COVERAGE CALCULATION, LEGEND ABBREVIATION			
Drawing no.			Rev.
TKO/AJC/W/A000/AR/001			0
Drawn	Date	Checked	Approved
OKAL	JAN 19	S.C.	T.C.
Scale	N.T.S.	Status	-

Appendix B

Summary of Implementation Status of Environmental Mitigation

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
				D	C	O		
Air Quality								
S4.8.1	Ultra-low-sulphur diesel (ULSD) will be used for all construction plant on-site, as defined as diesel fuel containing not more than 0.005% sulphur by weight) as stipulated in Environment, Transport and Works Bureau Technical Circular (ETWB-TC(W)) No 19/2005 on Environmental Management on Construction Sites.	Land site/ During construction/ During Operation	Contractor(s)		✓	✓	Implemented	Environment, Transport and Works Bureau Technical Circular (ETWB- TC(W)) No 19/2005 on Environmental Management on Construction Sites
Water Quality								
S6.9 and S6.12	The sterilization water should be dechlorinated with total residual chlorine (TRC) level below 1 mg/L before discharge to public sewer. In situ testing of TRC should also be conducted for the discharge of chlorinated water for pipeline disinfection to ensure sufficient dechlorination before discharge to public sewer.	Sterilization of water mains prior to commissioning	Contractor(s)		✓	✓	Implemented	Technical Memorandum for Effluents Discharged into Drainage and Sewerage Systems Inland and Coastal Waters
S6.9	The cleaning and flushing water should also be treated and desilted to the relevant discharge requirement stipulated in TM-DSS before discharging.	Sterilization of water mains prior to commissioning	Contractor(s)		✓	✓	Implemented	
S6.9	Site drainage should be well maintained, and good construction practices should be observed to ensure that oil, fuels, solvents, and other chemicals are managed, stored and handled properly and do not enter the nearby water streams.	Land site & drainage/ During construction/ During operation	Contractor(s)		✓	✓	Implemented	-
Waste Management								
S8.5	Provision of sufficient waste disposal points and regular collection for disposal.	All area/ During construction/ During operation	Contractor(s)		✓	✓	Implemented	DEVB TC(W) No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness.
S8.5	Chemical waste container shall be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Chemical waste container shall have a capacity of less than 450 L unless the specifications have been approved by the EPD.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	
S8.5	A label in English and Chinese shall be displayed on the chemical container in accordance with instructions prescribed in Schedule 2 of the Regulations.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
				D	C	O		
S8.5	Storage areas for chemical waste shall be enclosed on at least 3 sides.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	
S8.5	Storage areas for chemical waste shall have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	
S8.5	Storage areas for chemical waste shall have adequate ventilation.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	
S8.5	Storage areas for chemical waste shall be covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary).	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	
S8.5	Storage areas for chemical waste shall be arranged so that incompatible materials are appropriately separated.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	
S8.5	General refuse will be stored in enclosed bins or compaction units separately from construction and chemical wastes.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented after reminder	
S8.5	Adequate number of waste containers will be provided to avoid over-spillage of waste.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	DEVB TC(W) No. 8/2010 Enhanced Specification for Site Cleanliness and Tidiness.
S8.5	A reputable waste collector will be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimize odour, pest and litter impacts.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	-
S8.5	Recycling bins will be provided at strategic locations within the Site to facilitate recovery of recyclable materials (including aluminum can, wastepaper, glass bottles and plastic bottles) from the Site. Materials recovered will be sold for recycling.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	-
Landscape & Visual								
S11.10 & 11.11	The construction area and area allowed for temporary structures, such as the contractor's office, will be minimized to a practical minimum. (MM1)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	Implemented	-

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

EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
				D	C	O		
	installation. (MM7)							
S11.10 & 11.11	All night-time lighting will be reduced to a practical minimum both in terms of number of level and will be hooded and directional. (MM8) units and lux level and will be hooded and directional. (MM8)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	Implemented	-
Landfill Gas Hazard								
S12.7	During all works, safety procedures should be implemented to minimize the risks of fires and explosions, asphyxiation of workers and toxicity effects resulting from contact with contaminated soil and groundwater.	All area/ Detailed design/ During construction/operation	Contractor(s)	✓	✓	✓	Implemented	-
S12.7	During trenching and excavation as well as creation of confined spaces at near to or below ground level, precautions should be clearly laid down and rigidly Gas detection equipment and appropriate breathing apparatus should be available and used when entering confined spaces or trenches deeper than 1 meter.	All area/ Detailed design/ During construction/operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	The Contractor should make the workers are aware of potential hazards of working in confined spaces (any chamber, manhole or culvert which is large enough to permit access to personnel). Such work in confined spaces is controlled by the Factories and Industrial Undertakings (Confined Spaces) Regulations of the Factories and Industrial Undertakings Ordinance. Following the Safety Guide to Working in Confined Spaces ensures compliance with the above regulations.	All area/ Detailed design/ During construction/operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	Safety officers, specifically trained with regard to landfill gas and leachate related hazards and the appropriate actions to take in adverse circumstances, should be present on the site throughout the works, in particular, when works are undertaken below grade.	All area/ Detailed design/ During construction/operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	All personnel who work on site and all visitors to the site should be made aware of the possibility of ignition of gas in the vicinity of the works, the possible presence of contaminated water and the need to avoid physical contact with it.	All area/ Detailed design/ During construction/operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	Monitoring for landfill gas should be undertaken in all excavations, manholes, chambers (particularly during pipe jacking) and any confined spaces through the use of an intrinsically safe portable instrument, appropriately calibrated and capable of measuring the concentrations of methane. carbon dioxide and oxygen.	All area/ Detailed design/ During construction/operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	Monitoring frequency and areas to be monitored should be specified prior to commencement of groundwork, either by the Safety Officer, or by an appropriately qualified person. All measurements should be recorded and documented.	All area/ Detailed design/ During construction/operation	Contractor(s)	✓	✓	✓	Implemented	

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

Note: D – Design stage C – Construction O – Operation

Appendix C

Impact Monitoring Schedule

Contract No. 13/WSD/17
 Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant
 Water Quality Monitoring Schedule (August 2025)

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1 Continuous Effluent Monitoring (with ACUMER 405 Monitoring)	2 Continuous Effluent Monitoring (with ACUMER 405 Monitoring)
3 Continuous Effluent Monitoring (with ACUMER 405 Monitoring)	4 Continuous Effluent Monitoring (with ACUMER 405 Monitoring)	5 Continuous Effluent Monitoring (with ACUMER 405 Monitoring)	6 Continuous Effluent Monitoring (with ACUMER 405 Monitoring)	7 Continuous Effluent Monitoring (with ACUMER 405 Monitoring)	8 Continuous Effluent Monitoring (with ACUMER 405 Monitoring)	9 Continuous Effluent Monitoring (with ACUMER 405 Monitoring)
10 Continuous Effluent Monitoring (with ACUMER 405 Monitoring)	11 Continuous Effluent Monitoring (with ACUMER 405 Monitoring)	12 Continuous Effluent Monitoring (with ACUMER 405 Monitoring)	13 Continuous Effluent Monitoring (with ACUMER 405 Monitoring)	14 Continuous Effluent Monitoring (with ACUMER 405 Monitoring)	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Remarks:

1. Continuous Effluent Monitoring Parameters: Temperature, pH, Turbidity, Salinity, Total Residual Chlorine, Suspended Solids, Total Inorganic Nitrogen, Total Phosphorous, Iron, Sodium Metabisulphite and ACUMER 405.
2. The first year of TKODP operation concluded on 30 June 2025. Marine water quality monitoring for the first year was completed in June, and no marine water quality monitoring will be conducted in July 2025.
3. According to the contractor, water production ceased on 14 August 2025 due to WSD maintenance works and continuous monitoring of effluent quality was discontinued on 15 August 2025.
4. According to the approved proposal to change the operation phase EM&A programme for the 2nd to 10th years, continuous monitoring of effluent quality was discontinued and replaced with effluent water monitoring in compliance with discharge license requirements starting from 15 August 2025.

Note:

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

Contract No. 13/WSD/17
 Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant
 Tentative Water Quality Monitoring Schedule (September 2025)

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
Monthly Effluent Monitoring (with ACUMER 405 Monitoring)						
21	22	23	24	25	26	27
28	29	30				

Remarks:

1. Monthly Effluent Monitoring Parameters: Temperature, pH, Turbidity, Salinity, Total Residual Chlorine, Suspended Solids, Total Inorganic Nitrogen, Total Phosphorous, Iron, Sodium Metabisulphite and ACUMER 405.
2. The first year of TKODP operation concluded on 30 June 2025. Marine water quality monitoring for the first year was completed in June, and no marine water quality monitoring will be conducted in July 2025.
3. According to the contractor, water production ceased on 14 August 2025 due to WSD maintenance works and continuous monitoring of effluent quality was discontinued on 15 August 2025.
4. According to the approved proposal to change the operation phase EM&A programme for the 2nd to 10th years, continuous monitoring of effluent quality was discontinued and replaced with effluent water monitoring in compliance with discharge license requirements starting from 15 August 2025.

Note:

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

Contract No. 13/WSD/17
 Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant
 Landfill Gas Monitoring Schedule (August 2025)

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
				Landfill Gas Monitoring	Landfill Gas Monitoring	
17	18	19	20	21	22	23
24	25	26	27	28	29	30
Remarks: 1. Monitoring Parameters: Oxygen, Methane, Carbon Dioxide and Barometric Pressure 2. According to the approved proposal to change the operation phase EM&A programme for the 2nd to 10th years, landfill gas will be conducted on a every six month basis starting from August 2025.						

Contract No. 13/WSD/17
 Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant
 Tentative Landfill Gas Monitoring Schedule (February 2026)

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
			Landfill Gas Monitoring	Landfill Gas Monitoring		
15	16	17	18	19	20	21
22	23	24	25	26	27	28
Remarks: 1. Monitoring Parameters: Oxygen, Methane, Carbon Dioxide and Barometric Pressure 2. According to the approved proposal to change the operation phase EM&A programme for the 2nd to 10th years, landfill gas will be conducted on a every six month basis starting from August 2025.						

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

Aug-25						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
						Wet Season Fisheries Monitoring
17	18	19	20	21	22	23
				Coral Monitoring		Wet Season Fisheries Monitoring
24	25	26	27	28	29	30

1. The schedule may change due to unforeseen circumstances (adverse weather, etc.)
 2. According to the approved proposal to change the operation phase EM&A programme for the 2nd to 10th years, coral monitoring will be conducted on a quarterly basis starting from August 2025.

Contract No. 13/WSD/17
 Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant
 Tentative Ecological Monitoring Schedule

Nov-25

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

1. The schedule may change due to unforeseen circumstances (adverse weather, etc.)
 2. According to the approved proposal to change the operation phase EM&A programme for the 2nd to 10th years, coral monitoring will be conducted on a quarterly basis starting from August 2025.

Appendix D

Event / Action Plan

Table D1 Event and Action Plan for Water Quality Monitoring

Event	Action	IEC	Contractor(s)	ER
Action Level being exceeded by one sampling day	<ol style="list-style-type: none"> 1. Repeat <i>in situ</i> measurement on the next day of exceedance to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and ER. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing.
Action Level being exceeded by two or more consecutive sampling days	<ol style="list-style-type: none"> 1. Repeat <i>in situ</i> measurement on the next day of exceedance to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and ER; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD; 3. Discuss with ET and Contractor(s) on additional mitigation measures and advise ER accordingly; 4. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Consider changes of working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to ER within 3 working days; 5. Implement the agreed mitigation measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented. 3. Ensure additional mitigation measures are properly implemented.
Limit Level being exceeded by one sampling day	<ol style="list-style-type: none"> 1. Repeat <i>in situ</i> measurement on the next day of exceedance to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and ER; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD; 3. Discuss with ET and Contractor(s) on additional mitigation measures and advise ER accordingly; 4. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Critically review the need to change working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to ER within 3 working days; 5. Implement the agreed mitigation measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented. 3. Ensure additional mitigation measures are properly implemented. 4. Request Contractor(s) to critically review the working methods.
Limit Level being exceeded by two or more consecutive sampling days	<ol style="list-style-type: none"> 1. Repeat <i>in situ</i> measurement on the next day of exceedance to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and ER; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD; 3. Discuss with ET and Contractor(s) on additional mitigation measures and advise ER accordingly; 4. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Critically review the need to change working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to ER within 3 working days; 5. Implement the agreed mitigation measures. 6. As directed by ER, slow down or stop all or part of the marine construction works/ production volume of the desalination plant until no exceedance of Limit Level. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented. 3. Ensure additional mitigation measures are properly implemented. 4. Request Contractor(s) to critically review the working methods; 5. Consider and instruct, if necessary, the Contractor(s) to slow down or to stop all or part of the marine construction works/ production volume of the desalination plant until no exceedance of Limit Level.

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

Table D2 Event and Action Plan for Ecology during Operation Phase

Event	Action				
	ET	IEC	Contractor(s)	ER	
Non-conformity on one occasion	<ol style="list-style-type: none"> 1. Identify source 2. Inform IEC and ER 3. Discuss remedial actions with IEC, the ER and the Contractor 4. Monitor/ audit/ review remedial actions until rectification has been completed 	<ol style="list-style-type: none"> 1. Check monitoring/ auditing results 2. Check the Contractor's working method 3. Discuss with the ET and Contractor on possible remedial measures 4. Advise the ER on effectiveness of proposed remedial measures 5. Check the implementation of remedial measures 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further problem 2. Amend working methods if needed 3. Submit proposals for remedial actions to ET, ER and IEC 4. Rectify damage and implement the agreed remedial actions 	<ol style="list-style-type: none"> 1. Notify Contractor 2. Ensure remedial measures are properly implemented 3. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the works in case of serious non-conformity until situation is rectified 	
Repeated Non-conformity	<ol style="list-style-type: none"> 1. Identify source 2. Inform IEC, ER, EPD and AFCD 3. Increase monitoring and audit frequency 4. Discuss remedial actions with the IEC, the ER and the Contractor 5. Monitor/ audit/ review remedial actions until rectification has been completed 6. If non-conformity stops, cease additional monitoring/ auditing 	<ol style="list-style-type: none"> 1. Check monitoring/ auditing results 2. Check the Contractor's working method 3. Discuss with the ET and Contractor on possible remedial measures 4. Supervise the implementation of remedial measures 5. Advise the ER on effectiveness of proposed remedial measures and keep EPD and AFCD informed 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further problem 2. Amend working methods if needed 3. Submit proposals for remedial actions to ET, ER and IEC 4. Rectify damage and implement the agreed remedial actions 	<ol style="list-style-type: none"> 1. Notify Contractor 2. Ensure remedial measures are properly implemented 3. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the works in the case of serious non-conformity until situation is rectified 	

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

Table D3 Event and Action Plan for Operation Phase Coral Monitoring

Event	Action			
	ET Leader	IEC	SOR **	Contractor
Action Level Exceedance	<ol style="list-style-type: none"> 1. Check monitoring data 2. Inform the IEC, SOR and Contractor of the findings; 3. Increase the monitoring to at least once a month to confirm findings; 4. Propose mitigation measures for consideration 	<ol style="list-style-type: none"> 1. Discuss monitoring with the ET and the Contractor; 2. Review proposals for additional monitoring and any other measures submitted by the Contractor and advise the SOR accordingly. 	<ol style="list-style-type: none"> 1. Discuss with the IEC additional monitoring requirements and any other measures proposed by the ET; 2. Make agreement on the measures to be implemented. 	<ol style="list-style-type: none"> 1. Inform the SOR and confirm notification of the non-compliance in writing; 2. Discuss with the ET and the IEC and propose measures to the IEC and the SOR; 3. Implement the agreed measures.
Limit Level Exceedance	<ol style="list-style-type: none"> 1. Undertake Steps 1-4 as in the Action Level Exceedance. If further exceedance of Limit Level, propose enhancement measures for consideration. 	<ol style="list-style-type: none"> 1. Discuss monitoring with the ET and the Contractor; 2. Review proposals for additional monitoring and any other measures submitted by the Contractor and advise the SOR accordingly. 	<ol style="list-style-type: none"> 1. Discuss with the IEC additional monitoring requirements and any other measures proposed by the ET; 2. Make agreement on the measures to be implemented. 	<ol style="list-style-type: none"> 1. Inform the SOR and confirm notification of the non-compliance in writing; 2. Discuss with the ET and the IEC and propose measures to the IEC and the SOR; 3. Implement the agreed measures.

Remark: ** The "SOR" is equivalent to the "ER" as defined in the EM&A Manual of the Project

Table D4 Event and Action Plan for Operation Phase LFG Hazard

Parameters	Level	Action
Oxygen (O ₂)	Action Level < 19% O ₂	Ventilate trench/void to restore O ₂ to > 19%
	Limit Level < 19% O ₂	Stop works Evacuate personnel/prohibit entry Increase ventilation to restore O ₂ to > 19%
Methane (CH ₄)	Action Level >10% LEL	Post "No Smoking" signs Prohibit hot works Increase ventilation to restore CH ₄ to <10% LEL
	Limit Level >20% LEL	Stop works Evacuate personnel/prohibit entry Increase ventilation to restore CH ₄ to <10% LEL
Carbon Dioxide (CO ₂)	Action Level >0.5% CO ₂	Ventilate to restore CO ₂ to < 0.5%
	Limit Level >1.5% CO ₂	Stop works Evacuate personnel / prohibit entry Increase ventilation to restore CO ₂ to <0.5%

Appendix E

Water Quality Monitoring Equipment and Landfill Gas Equipment Calibration Certification



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: MR. TOBY WAN
CLIENT: AURECON HONG KONG LIMITED
ADDRESS: UNIT 1608, 16/F, TOWER B,
MANULIFE FINANCIAL CENTRE,
223-231 WAI YIP STREET,
KWUN TONG, HONG KONG

WORK ORDER: HK2536161
SUB-BATCH: 0
LABORATORY: HONG KONG
DATE RECEIVED: 12-Aug-2025
DATE OF ISSUE: 25-Aug-2025

GENERAL COMMENTS

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

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.

The validity of equipment/ meter performance only applies to the result(s) stated in the report.

This report superseded any previous report(s) with same work order number.

EQUIPMENT INFORMATION

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client.

Equipment Type: pH meter
Service Nature: Performance Check

Scope: pH Value

Brand Name/ Model No.: [Xylem]/ [SensoLyt®700IQ SW, SensoLyt® SEA]

Serial No./ Equipment No.: [24111620]/ [N/A]

Date of Calibration: 12-August-2025

Mr Chan Wai Hung Mannix
Laboratory Manager - Project

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2536161
SUB-BATCH: 0
DATE OF ISSUE: 25-Aug-2025
CLIENT: AURECON HONG KONG LIMITED

Equipment Type: pH meter
Brand Name/ Model No.: [Xylem]/ [SensoLyt®700IQ SW, SensoLyt® SEA]
Serial No./ Equipment No.: [24111620]/ [N/A]
Date of Calibration: 12-August-2025 Date of Next Calibration: 12-November-2025

PARAMETERS:

pH Value

Method Ref: APHA (23rd edition), 4500H: B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	4.02	+0.02
7.0	7.11	+0.11
10.0	10.16	+0.16
	Tolerance Limit (pH unit)	±0.20

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.



Mr Chan Wai Hung Mannix
Laboratory Manager - Project



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: MR. TOBY WAN
CLIENT: AURECON HONG KONG LIMITED
ADDRESS: UNIT 1608, 16/F, TOWER B,
MANULIFE FINANCIAL CENTRE,
223-231 WAI YIP STREET,
KWUN TONG, HONG KONG

WORK ORDER: HK2536161
SUB-BATCH: 1
LABORATORY: HONG KONG
DATE RECEIVED: 12-Aug-2025
DATE OF ISSUE: 25-Aug-2025

GENERAL COMMENTS

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

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.

The validity of equipment/ meter performance only applies to the result(s) stated in the report.

This report superseded any previous report(s) with same work order number.

EQUIPMENT INFORMATION

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client.

Equipment Type: Salinity Meter
Service Nature: Performance Check

Scope: Salinity

Brand Name/ Model No.: [Xylem]/ [TetraCon® 700 IQ SW]

Serial No./ Equipment No.: [24110178]/ [N/A]

Date of Calibration: 12-August-2025

Mr Chan Wai Hung Mannix
Laboratory Manager - Project

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2536161
SUB-BATCH: 1
DATE OF ISSUE: 25-Aug-2025
CLIENT: AURECON HONG KONG LIMITED

Equipment Type: Salinity Meter
Brand Name/ Model No.: [Xylem]/ [TetraCon® 700 IQ SW]
Serial No./ Equipment No.: [24110178]/ [N/A]
Date of Calibration: 12-August-2025 Date of Next Calibration: 12-November-2025

PARAMETERS:

Salinity

Method Ref: APHA (23rd edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
20	20.1	+0.5
	Tolerance Limit (%)	±10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr Chan Wai Hung Mannix
Laboratory Manager - Project



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: MR. TOBY WAN
CLIENT: AURECON HONG KONG LIMITED
ADDRESS: UNIT 1608, 16/F, TOWER B,
MANULIFE FINANCIAL CENTRE,
223-231 WAI YIP STREET,
KWUN TONG, HONG KONG

WORK ORDER: HK2536161
SUB-BATCH: 4
LABORATORY: HONG KONG
DATE RECEIVED: 12-Aug-2025
DATE OF ISSUE: 25-Aug-2025

GENERAL COMMENTS

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

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.

The validity of equipment/ meter performance only applies to the result(s) stated in the report.

This report superseded any previous report(s) with same work order number.

EQUIPMENT INFORMATION

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client.

Equipment Type: Thermometer
Service Nature: Performance Check
Scope: Temperature

Brand Name/ Model No.: [Xylem]/ [TetraCon® 700IQ SW, SensoLyt®700IQ SW]
Serial No./ Equipment No.: [24111620]/ [N/A]
Date of Calibration: 12-August-2025

Mr Chan Wai Hung Mannix
Laboratory Manager - Project

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2536161
SUB-BATCH: 4
DATE OF ISSUE: 25-Aug-2025
CLIENT: AURECON HONG KONG LIMITED

Equipment Type: Thermometer
Brand Name/ Model No.: [Xylem]/ [TetraCon® 700IQ SW, SensoLyt®700IQ SW]
Serial No./ Equipment No.: [24111620]/ [N/A]
Date of Calibration: 12-August-2025 Date of Next Calibration: 12-November-2025

PARAMETERS:

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
29.3	29.4	+0.1
	Tolerance Limit (°C)	±2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr Chan Wai Hung Mannix
Laboratory Manager - Project



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: MR. TOBY WAN
CLIENT: AURECON HONG KONG LIMITED
ADDRESS: UNIT 1608, 16/F, TOWER B,
MANULIFE FINANCIAL CENTRE,
223-231 WAI YIP STREET,
KWUN TONG, HONG KONG

WORK ORDER: HK2536161
SUB-BATCH: 5
LABORATORY: HONG KONG
DATE RECEIVED: 12-Aug-2025
DATE OF ISSUE: 25-Aug-2025

GENERAL COMMENTS

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

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.

The validity of equipment/ meter performance only applies to the result(s) stated in the report.

This report superseded any previous report(s) with same work order number.

EQUIPMENT INFORMATION

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client.

Equipment Type: Chlorine Meter
Service Nature: Performance Check
Scope: Total Residual Chlorine
Brand Name/ Model No.: [Xylem]/ [HACH CL17SC]
Serial No./ Equipment No.: [220700016663]/ [N/A]
Date of Calibration: 12-August-2025

Mr Chan Wai Hung Mannix
Laboratory Manager - Project

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2536161
SUB-BATCH: 5
DATE OF ISSUE: 25-Aug-2025
CLIENT: AURECON HONG KONG LIMITED

Equipment Type: Chlorine Meter
Brand Name/ Model No.: [Xylem]/ [HACH CL17SC]
Serial No./ Equipment No.: [220700016663]/ [N/A]
Date of Calibration: 12-August-2025 Date of Next Calibration: 12-November-2025

PARAMETERS:

Total Residual Chlorine

Method Ref: APHA (23rd edition), 4500Cl: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (%)
0.18	0.18	Not applicable
	Tolerance Limit (%)	±10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.


Mr Chan Wai Hung Mannix
Laboratory Manager - Project



MSA Hong Kong Ltd.

25/F Jupiter Tower, 9 Jupiter Street, Hong Kong

The Safety Company Tel 852-22587588 Fax 25478780 Email info.hk@msasafety.com Website www.msasafety.com

Ref: 2025/05/001
Customer Aurecon Hong Kong Ltd.

Date: 22-May-25

CERTIFICATE FOR CALIBRATION CHECK TEST

Model	Serial No.	Calibration Check Gas	Regulator	Full Scale	Response
Altair 5X	221165	1.45% Methane, 15% Oxygen 60ppm Carbon Monoxide 20ppm Hydrogen Sulfide 10% Vol Carbon Dioxide	.25litre/min	100% LEL	29% LEL
				30% Vol	15% O2
				1999 ppm	60 ppm CO
				200 ppm	20 ppm H2S
				10% Vol	3% CO2

Remarks: Regular inspection completed. Calibration passed

MSA Hong Kong Ltd. certify that instrument/s listed above has/have been calibrated check tested on:
22-May-25

This instrument was calibrated in accordance with all requirements of the specifications of MSA.

This instrument must be calibration checked prior to use in accordance with the instruction manual.

This instrument was calibrated using NIST traceable equipment and was in accordance with all requirements of the drawings and specifications of MSA.

For and on behalf of
MSA Hong Kong Ltd.

Authorised Signature

Appendix F

Water Quality Monitoring Data & Landfill Gas Monitoring Data

Date & Time	Sal (ppt)	pH	Temp (°C)	Total Residual Chlorine (mg/L)
08/01/2025 12:00 AM	57.98	8.20	26.70	0.04
08/01/2025 02:00 AM	57.86	7.90	26.50	0.05
08/01/2025 04:00 AM	57.88	7.80	26.80	0.01
08/01/2025 06:00 AM	57.80	8.00	26.50	0.05
08/01/2025 08:00 AM	57.79	7.70	26.40	0.03
08/01/2025 10:00 AM	57.81	8.10	26.60	0.02
08/01/2025 12:00 PM	57.82	8.20	26.50	0.01
08/01/2025 02:00 PM	57.68	8.00	26.50	0.04
08/01/2025 04:00 PM	57.75	8.20	26.40	0.06
08/01/2025 06:00 PM	57.80	8.00	26.80	0.01
08/01/2025 08:00 PM	57.76	7.80	26.70	0.02
08/01/2025 10:00 PM	57.68	7.90	26.80	0.03
08/02/2025 12:00 AM	58.20	8.00	26.10	0.05
08/02/2025 02:00 AM	58.16	8.10	26.20	0.04
08/02/2025 04:00 AM	58.26	8.00	26.30	0.02
08/02/2025 06:00 AM	58.27	7.80	26.40	0.04
08/02/2025 08:00 AM	58.29	7.70	26.50	0.03
08/02/2025 10:00 AM	58.19	7.60	26.60	0.02
08/02/2025 12:00 PM	58.26	8.00	26.50	0.01
08/02/2025 02:00 PM	58.13	8.10	26.20	0.05
08/02/2025 04:00 PM	57.98	8.20	26.50	0.01
08/02/2025 06:00 PM	57.91	7.90	26.30	0.05
08/02/2025 08:00 PM	58.18	7.80	26.40	0.02
08/02/2025 10:00 PM	58.12	7.90	26.50	0.04
08/03/2025 12:00 AM	58.64	8.00	26.50	0.03
08/03/2025 02:00 AM	58.61	7.80	26.50	0.02
08/03/2025 04:00 AM	58.63	7.90	26.40	0.02
08/03/2025 06:00 AM	58.75	8.00	26.60	0.01
08/03/2025 08:00 AM	58.80	8.10	26.50	0.04
08/03/2025 10:00 AM	58.85	8.20	26.70	0.05
08/03/2025 12:00 PM	58.84	8.00	26.80	0.06
08/03/2025 02:00 PM	58.79	8.10	26.60	0.05
08/03/2025 04:00 PM	58.86	8.20	26.50	0.01
08/03/2025 06:00 PM	58.81	8.00	26.60	0.03
08/03/2025 08:00 PM	58.85	7.90	26.40	0.05
08/03/2025 10:00 PM	58.77	8.00	26.50	0.04
08/04/2025 12:00 AM	58.62	8.10	26.60	0.01
08/04/2025 02:00 AM	58.63	7.90	26.00	0.02
08/04/2025 04:00 AM	58.61	7.80	25.80	0.06
08/04/2025 06:00 AM	58.70	8.10	25.40	0.04
08/04/2025 08:00 AM	58.65	8.20	25.50	0.02
08/04/2025 10:00 AM	58.54	8.00	25.80	0.03
08/04/2025 12:00 PM	58.62	8.10	25.70	0.04
08/04/2025 02:00 PM	58.64	7.90	25.60	0.01
08/04/2025 04:00 PM	58.66	7.80	25.40	0.03
08/04/2025 06:00 PM	58.84	8.00	25.60	0.02
08/04/2025 08:00 PM	58.67	8.00	25.40	0.01
08/04/2025 10:00 PM	58.60	8.10	25.50	0.06

Date & Time	Sal (ppt)	pH	Temp (°C)	Total Residual Chlorine (mg/L)
08/05/2025 12:00 AM	58.69	8.20	25.80	0.05
08/05/2025 02:00 AM	58.70	8.00	25.70	0.04
08/05/2025 04:00 AM	58.71	8.10	25.40	0.03
08/05/2025 06:00 AM	58.76	8.00	25.60	0.02
08/05/2025 08:00 AM	58.77	8.20	25.10	0.01
08/05/2025 10:00 AM	58.80	7.90	25.50	0.02
08/05/2025 12:00 PM	58.76	8.00	25.60	0.03
08/05/2025 02:00 PM	58.71	8.10	25.40	0.02
08/05/2025 04:00 PM	58.69	8.20	25.80	0.04
08/05/2025 06:00 PM	58.74	7.90	25.40	0.04
08/05/2025 08:00 PM	58.69	7.80	26.00	0.02
08/05/2025 10:00 PM	58.70	8.20	25.90	0.03
08/06/2025 12:00 AM	58.69	8.30	25.50	0.05
08/06/2025 02:00 AM	58.47	8.00	25.60	0.04
08/06/2025 04:00 AM	58.40	8.10	25.40	0.01
08/06/2025 06:00 AM	58.55	7.90	25.40	0.05
08/06/2025 08:00 AM	58.61	7.80	25.90	0.04
08/06/2025 10:00 AM	58.58	8.00	26.10	0.03
08/06/2025 12:00 PM	58.66	7.90	26.00	0.02
08/06/2025 02:00 PM	58.48	7.80	26.20	0.01
08/06/2025 04:00 PM	58.60	8.00	26.00	0.04
08/06/2025 06:00 PM	58.54	8.10	25.90	0.03
08/06/2025 08:00 PM	58.55	8.20	25.80	0.02
08/06/2025 10:00 PM	58.58	8.00	25.40	0.06
08/07/2025 12:00 AM	58.56	8.00	25.80	0.05
08/07/2025 02:00 AM	58.64	7.90	25.90	0.04
08/07/2025 04:00 AM	54.06	7.90	25.80	0.02
08/07/2025 06:00 AM	54.55	8.00	26.00	0.03
08/07/2025 08:00 AM	54.05	8.10	26.10	0.04
08/07/2025 10:00 AM	54.54	8.20	26.20	0.05
08/07/2025 12:00 PM	54.65	7.90	26.00	0.01
08/07/2025 02:00 PM	54.13	8.10	25.90	0.02
08/07/2025 04:00 PM	54.23	8.20	25.80	0.03
08/07/2025 06:00 PM	54.26	8.00	25.40	0.04
08/07/2025 08:00 PM	54.54	7.90	25.80	0.06
08/07/2025 10:00 PM	54.54	8.00	25.60	0.05
08/08/2025 12:00 AM	58.00	8.10	25.70	0.04
08/08/2025 02:00 AM	58.05	8.20	26.10	0.01
08/08/2025 04:00 AM	58.01	7.90	26.00	0.02
08/08/2025 06:00 AM	58.03	8.00	26.20	0.03
08/08/2025 08:00 AM	58.01	8.20	26.30	0.01
08/08/2025 10:00 AM	58.00	8.10	26.00	0.02
08/08/2025 12:00 PM	58.04	8.30	26.10	0.03
08/08/2025 02:00 PM	58.09	7.90	26.20	0.02
08/08/2025 04:00 PM	58.04	8.00	26.30	0.03
08/08/2025 06:00 PM	58.05	8.00	26.50	0.04
08/08/2025 08:00 PM	58.03	8.10	25.80	0.05
08/08/2025 10:00 PM	59.00	8.20	26.20	0.01

Date & Time	Sal (ppt)	pH	Temp (°C)	Total Residual Chlorine (mg/L)
08/09/2025 12:00 AM	58.64	7.90	26.00	0.02
08/09/2025 02:00 AM	58.51	8.00	26.10	0.03
08/09/2025 04:00 AM	58.04	8.10	25.80	0.05
08/09/2025 06:00 AM	57.40	7.80	25.90	0.05
08/09/2025 08:00 AM	57.46	7.70	26.20	0.04
08/09/2025 10:00 AM	57.16	7.60	25.70	0.04
08/09/2025 12:00 PM	57.46	8.10	25.80	0.03
08/09/2025 02:00 PM	57.44	8.00	26.00	0.02
08/09/2025 04:00 PM	57.43	8.20	26.10	0.04
08/09/2025 06:00 PM	57.04	8.10	26.20	0.05
08/09/2025 08:00 PM	57.95	8.00	25.70	0.01
08/09/2025 10:00 PM	57.30	7.90	25.80	0.02
08/10/2025 12:00 AM	57.45	7.80	25.50	0.04
08/10/2025 02:00 AM	57.04	7.90	26.10	0.06
08/10/2025 04:00 AM	57.55	8.00	25.90	0.02
08/10/2025 06:00 AM	57.48	8.10	25.40	0.05
08/10/2025 08:00 AM	57.46	8.20	25.80	0.01
08/10/2025 10:00 AM	56.98	7.90	26.10	0.03
08/10/2025 12:00 PM	57.15	8.00	26.50	0.04
08/10/2025 02:00 PM	57.64	8.10	26.30	0.04
08/10/2025 04:00 PM	57.54	8.20	25.80	0.06
08/10/2025 06:00 PM	57.61	7.90	26.10	0.02
08/10/2025 08:00 PM	57.55	8.00	26.50	0.03
08/10/2025 10:00 PM	56.98	8.20	26.30	0.02
08/11/2025 12:00 AM	57.14	8.10	26.40	0.01
08/11/2025 02:00 AM	57.65	8.00	25.80	0.04
08/11/2025 04:00 AM	57.66	8.20	25.90	0.06
08/11/2025 06:00 AM	57.85	7.90	26.10	0.05
08/11/2025 08:00 AM	56.95	8.00	26.30	0.04
08/11/2025 10:00 AM	57.54	8.10	26.40	0.02
08/11/2025 12:00 PM	57.62	8.30	25.80	0.03
08/11/2025 02:00 PM	57.54	8.20	26.40	0.05
08/11/2025 04:00 PM	57.44	7.90	26.00	0.04
08/11/2025 06:00 PM	57.46	8.10	25.80	0.05
08/11/2025 08:00 PM	57.41	8.30	25.40	0.06
08/11/2025 10:00 PM	57.47	8.00	25.10	0.01
08/12/2025 12:00 AM	57.05	7.90	25.80	0.02
08/12/2025 02:00 AM	56.84	8.10	25.40	0.06
08/12/2025 04:00 AM	57.54	8.20	25.10	0.03
08/12/2025 06:00 AM	57.61	7.90	25.60	0.02
08/12/2025 08:00 AM	56.91	8.80	26.00	0.04
08/12/2025 10:00 AM	57.03	7.90	25.80	0.02
08/12/2025 12:00 PM	57.03	7.90	25.70	0.01
08/12/2025 02:00 PM	56.95	8.00	26.10	0.03
08/12/2025 04:00 PM	56.65	7.90	26.20	0.02
08/12/2025 06:00 PM	57.12	8.10	26.40	0.05
08/12/2025 08:00 PM	57.16	7.90	26.50	0.01
08/12/2025 10:00 PM	56.70	8.20	25.90	0.05

Date & Time	Sal (ppt)	pH	Temp (°C)	Total Residual Chlorine (mg/L)
08/13/2025 12:00 AM	57.10	8.20	26.50	0.06
08/13/2025 02:00 AM	57.25	8.00	26.10	0.01
08/13/2025 04:00 AM	57.56	7.90	26.20	0.02
08/13/2025 06:00 AM	57.50	8.00	25.90	0.03
08/13/2025 08:00 AM	57.45	7.80	26.30	0.02
08/13/2025 10:00 AM	57.49	8.00	26.20	0.02
08/13/2025 12:00 PM	57.35	7.70	26.10	0.01
08/13/2025 02:00 PM	57.49	7.90	26.50	0.05
08/13/2025 04:00 PM	57.53	8.00	26.30	0.01
08/13/2025 06:00 PM	57.48	7.90	26.40	0.03
08/13/2025 08:00 PM	57.38	8.00	26.50	0.02
08/13/2025 10:00 PM	57.44	7.50	25.90	0.02
08/14/2025 12:00 AM	57.40	7.90	26.10	0.03
08/14/2025 02:00 AM	57.43	8.00	26.80	0.01
08/14/2025 04:00 AM	57.35	8.10	25.80	0.02
08/14/2025 06:00 AM	57.01	7.90	25.40	0.01
08/14/2025 08:00 AM	57.52	8.20	25.60	0.02
08/14/2025 10:00 AM	57.51	7.90	25.10	0.03
08/14/2025 12:00 PM	57.64	8.30	26.10	0.02
08/14/2025 02:00 PM	57.16	8.20	26.30	0.01
08/14/2025 04:00 PM	57.65	7.90	26.50	0.02
08/14/2025 06:00 PM	57.04	8.00	26.40	0.02

*Remark:

- 1) According to the contractor, water production ceased on 14 August 2025 due to WSD maintenance works and continuous monitoring of effluent quality was discontinued on 15 August 2025.
- 2) According to the approved proposal to change the operation phase EM&A programme for the 2nd to 10th years, continuous monitoring of effluent quality was discontinued and replaced with effluent water monitoring in compliance with discharge license requirements starting from 15 August 2025.

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

Date & Time	Suspended Solids (mg/L)	Total Inorganic Nitrogen (mg/L)	Total Phosphorus (mg/L)	*Sodium Metabisulphite (mg/L)	Iron (mg/L)	*Anti-Scalant (mg/L)
1/08/2025	5	0.36	<0.01	<2	<0.1	<5
2/08/2025	<2	0.02	<0.01	<2	<0.1	<5
3/08/2025	4	0.45	<0.01	<2	<0.1	<5
4/08/2025	<2	0.4	<0.01	<2	<0.1	<5
5/08/2025	<2	0.38	<0.01	<2	<0.1	<5
6/08/2025	5	0.37	<0.01	<2	<0.1	<5
7/08/2025	<2	0.52	<0.01	<2	<0.1	<5
8/08/2025	<2	0.52	<0.01	<2	<0.1	<5
9/08/2025	5	0.43	0.04	<2	<0.1	<5
10/08/2025	3	0.42	0.04	<2	<0.1	<5
11/08/2025	3	0.34	<0.01	<2	<0.1	<5
12/08/2025	4	0.32	<0.01	<2	<0.1	<5
13/08/2025	6	0.28	<0.01	<2	<0.1	<5
14/08/2025	2	0.26	<0.01	<2	<0.1	<5
15/08/2025						
16/08/2025						
17/08/2025						
18/08/2025						
19/08/2025						
20/08/2025						
21/08/2025						
22/08/2025						
23/08/2025						
24/08/2025						
25/08/2025						
26/08/2025						
27/08/2025						
28/08/2025						
29/08/2025						
30/08/2025						
31/08/2025						

*Remark:

- 1)Due to the limitation of the laboratory, the lowest result for Sodium Metabisulphite will only be shown as < 2 mg/L.
- 2)Due to the limitation of the laboratory, the lowest result for Anti-Scalant will only be shown as < 5 mg/L.
- 3)According to the approved proposal to change the operation phase EM&A programme for the 2nd to 10th years, continuous monitoring of effluent quality was discontinued and replaced with effluent water monitoring in compliance with discharge license requirements starting from 15 August 2025.

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of site: Tseung Kwan O Desalination Plant Phase 1

Sampling equipment used:	Dates calibrated
Altair 22105	22/5/25

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp °C	Pressure mBar	Remark
MH1 - Mid	14/8/2025	0900	Rainy	0	0	0.1	20.8	24	1006	
MH1 - Base	14/8/2025	0930	Rainy	0	0	0.2	20.7	24	1006	
MH2 - Mid	14/8/2025	0900	Rainy	0	0	0.01	20.6	24	1006	
MH2 - Base	14/8/2025	0930	Rainy	0	0	0.2	20.8	27	1006	
MH3 - Mid	14/8/2025	0900	Rainy	0	0	0.01	20.7	24	1006	
MH3 - Base	14/8/2025	0945	Rainy	0	0	0.1	20.6	24	1006	
MH4 - Mid	14/8/2025	1040	Rainy	0	0	0.02	20.5	24	1006	
MH4 - Base	14/8/2025	1120	Rainy	0	0	0.1	20.4	24	1006	
MH5 - Mid	14/8/2025	1200	Rainy	0	0	0.01	20.7	24	1006	
MH5 - Base	14/8/2025	1235	Rainy	0	0	0.01	20.8	24	1006	
MH6 - Mid	14/8/2025	1305	Rainy	0	0	0.01	20.7	24	1006	

Prepared by field operator: Name & Designation Signature Date
Norman Kwok [Signature] 22/8/2025

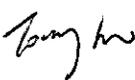
Checked by: Tomy Kwok [Signature] 22/8/2025

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of site: Tseung Kwan O Desalination Plant Phase 1

Sampling equipment used:	Dates calibrated
M/1015 X 22168	22/8/25

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp °C	Pressure mBar	Remark
MU6-Base	14/8/2025	1340	Rainy	0	0	0.01	20.8	24	1006	
MU7-Base	14/8/2025	1410	Rainy	0	0	0.01	20.7	24	1006	
MU8-Base	14/8/2025	1448	Rainy	0	0	0.01	20.6	24	1006	
MU8-Mid	14/8/2025	1520	Rainy	0	0	0.01	20.7	24	1006	
MU8-Base	14/8/2025	1555	Rainy	0	0	0.01	20.6	24	1006	
MU9-Mid	14/8/2025	1620	Rainy	0	0	0.02	20.8	24	1006	
MU9-Base	14/8/2025	1700	Rainy	0	0	0.01	20.7	24	1006	
MU10-Mid	14/8/2025	1735	Rainy	0	0	0.01	20.6	24	1006	
MU10-Base	14/8/2025	1805	Rainy	0	0	0.01	20.6	24	1006	
MU11-Mid	14/8/2025	1908	Rainy	0	0	0.01	20.6	24	1006	
MU11-Base	14/8/2025	1945	Rainy	0	0	0.01	20.7	24	1006	

Prepared by field operator:	Name & Designation Norman Kwok	Signature 	Date 22/8/2025
Checked by:			22/8/2025

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of site: Tseung Kwan O Desalination Plant Phase 1

Sampling equipment used:	Dates calibrated
Hi-Tair 2x m105	20/8/25

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp °C	Pressure mBar	Remark
MM12-Mid	15/8/2025	0700	Sunny	0	0	0.21	20.8	25	1009	
MM12-Bore	15/8/2025	0730	Sunny	0	0	0.02	20.6	25	1009	
MM13-Mid	15/8/2025	0815	Sunny	0	0	0.01	20.7	25	1009	
MM13-Bore	15/8/2025	0839	Sunny	0	0	0.01	20.8	25	1009	
MM14-Mid	15/8/2025	0920	Sunny	0	0	0.02	20.6	25	1009	
MM14-Bore	15/8/2025	0950	Sunny	0	0	0.01	20.5	25	1009	
MM15-Mid	15/8/2025	1035	Sunny	0	0	0.02	20.4	25	1009	
MM15-Bore	15/8/2025	1125	Sunny	0	0	0.03	20.8	25	1009	
MM16-Mid	15/8/2025	1200	Sunny	0	0	0.01	20.4	25	1009	
MM16-Bore	15/8/2025	1245	Sunny	0	0	0.01	20.7	25	1009	
MM17-Mid	15/8/2025	1310	Sunny	0	0	0.21	20.7	25	1009	

Prepared by field operator: Name & Designation Signature Date
Norman Kwok [Signature] 22/8/2025

Checked by: [Signature] [Signature] 20/8/2025

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of site: Tseung Kwan O Desalination Plant Phase 1

Sampling equipment used:	Dates calibrated
Airmax 2465	22/8/25

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp °C	Pressure mBar	Remark
M117-Duse	15/8/2025	1430	Sunny	0	0	0.01	20.7	25	1009	
B2KV S.S. Station	15/8/2025	1530	Sunny	0	0	0.02	20.8	25	1009	
Trat. water	15/8/2025	1605	Sunny	0	0	0.01	20.6	25	1009	
Pumping Station										
Trat. water Tank	15/8/2025	1625	Sunny	0	0	0.01	20.5	25	1009	
Chlorine water Tank	15/8/2025	1740	Sunny	0	0	0.02	20.6	25	1009	
Switch Room	15/8/2025	1830	Sunny	0	0	0.01	20.7	25	1009	
Stand by water generator water room.	15/8/2025	1905	Sunny	0	0	0.01	20.8	25	1009	

Prepared by field operator:	Name & Designation Norman Knuck	Signature 	Date 22/8/2025
Checked by:	Tony Kw		22/8/2025

Appendix H

Ecology (Coral) Survey Report

1 INTRODUCTION

1.1 Background

- 1.1.1 The Project, Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant (TKODP), is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO) and is currently governed by a Further Environmental Permit (EP No. FEP – 01/503/2015/B) for the construction and operation of the Project.
- 1.1.2 The Jardine Engineering Corporation, Limited, China State Construction Engineering (Hong Kong) Limited and Acciona Agua, S.A. Trading As AJC Joint Venture (AJCJV) is contracted to carry out the Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant (TKODP) under Contract No. 13/WSD/17 (the Project).
- 1.1.3 Aurecon Hong Kong Limited (Aurecon) is commissioned by AJCJV to undertake the Environmental Team (ET) services as required and/or implied, both explicitly and implicitly, in the Environmental Permit (EP), Environmental Impact Assessment Report (EIA Report) (Register No. AEIAR-192/2015) and Environmental Monitoring and Audit Manual (EM&A Manual) for the Project; and to carry out the Environmental Monitoring and Audit (EM&A) programme in fulfillment of the EIA Report's EM&A requirements and Contract No. 13/WSD/17 Specification requirements.
- 1.1.4 The proposed Desalination Plant at Tseung Kwan O (TKODP) will produce potable water with an initial capacity of 135 million litres per day (MLD), expandable to an ultimate capacity of 270 MLD in the future to provide a secure and alternative fresh water resource complying with the World Health Organization (WHO) standards. The plant will adopt the Seawater Reverse Osmosis (SWRO) technology, which dominates the market due to its reliability and progressive reduction in cost as the technology advances.
- 1.1.5 A baseline coral survey was conducted in October 2023 to verify the validity of the previous EIA findings as well as to provide updated coral data for impact monitoring during the construction and operation phases. Two indirect impact sites and one control site were identified during the baseline coral survey for impact monitoring.

2 Methodology

- 2.1 All tagged coral colonies in C2, C3 and C8 will be monitored monthly during the first year of Project operation. The monitoring team will record the following parameters (using the same methodology adopted during the pre-construction phase survey): size, presence, survival, health conditions (percentage of mortality) and percentage of sediment of each tagged coral colonies. The general environmental conditions during the survey date will also be monitored.
- 2.2 Photographic records of the tagged coral colonies will be taken as far as possible maintaining the same aspect and orientation as photographs taken for the pre-translocation surveys. All the tags for marking coral colonies will be removed / retrieved once the monitoring programme is completed.
- 2.3 The results of the operation phase monitoring surveys should be reviewed with reference to findings of the baseline survey.
- 2.4 If, during the operation phase monitoring, observations of any die-off / abnormal conditions of the tagged corals are made, the ET will inform the Contractor, Independent Environmental Checker (IEC)/ Environmental Project Office (ENPO), Agriculture, Fisheries and Conservation Department (AFCD) and in liaison with AFCD investigate any measures needed.
- 2.5 Monitoring result will be reviewed and be compared against the Action Level and Limit Level (AL/LL) as set out in Table 2-1. Actions specified on Table 2-2 will be taken by ET, IEC, SOR and Contractor shall there be exceedance of AL/LL

Table 2-1 Action and Limit Levels for Operation Phase Coral Monitoring

Parameter	Action Level Definition	Limit Level Definition
Mortality	If during Impact Monitoring a 15% increase in the percentage of partial mortality on the corals occurs at more than 20% of the tagged indirect impact site coral colonies that is not recorded on the tagged corals at the control site, then the Action Level is exceeded	If during Impact Monitoring a 25% increase in the percentage of partial mortality on the corals occurs at more than 20% of the tagged indirect impact site coral colonies that is not recorded on the tagged corals at the control site, then the Limit Level is exceeded

Note: If the defined Action Level or Limit Level for coral monitoring is exceeded, the actions as set out in Table 2-2 will be implemented.

Table 2-2 Event and Action Plan for Operation Phase Monitoring

Event	Action			
	ET Leader	IEC	SOR	Contractor
Action Level Exceedance	<ol style="list-style-type: none"> 1. Check monitoring data 2. Inform the IEC, SOR and Contractor of the findings; 3. Increase the monitoring to at least once a month to confirm the findings; 4. Propose mitigation measures for consideration 	<ol style="list-style-type: none"> 1. Discuss monitoring with the ET and the Contractor; 2. Review proposals for additional monitoring and any other measures submitted by the Contractor and advise the SOR accordingly. 	<ol style="list-style-type: none"> 1. Discuss with the IEC additional monitoring requirements and any other measures proposed by the ET; 2. Make agreement on the measures to be implemented. 	<ol style="list-style-type: none"> 1. Inform the SOR and confirm notification of the non-compliance in writing; 2. Discuss with the ET and the IEC and propose measures to the IEC and the SOR; 3. Implement the agreed measures.

Remark: ** The “SOR” is equivalent to the “ER” as defined in the EM&A Manual of the Project

3 Result

3.1 The August 2025 operation phase monitoring were performed on 21st August 2025 for both Indirect Impact Sites and Control Site (Figure 1 and 2); and the weather conditions were summarized in Table 3-1.

Table 3-1 Weather Condition for the August 2025 Operation Phase Monitoring

Date	Condition	Average Underwater Visibility
21 st August 2025	<ul style="list-style-type: none"> - Southeast force 4 to 5 - Sunny 	0.5 – 1 m

3.2 Ten (10) hard coral colonies in C2, C3 and C8 were monitored at each site of Control and Indirect Impact sites as suggested in the Operation Phase Monitoring Plan. Coral #4 in Site C2 and coral #7 in Site C8 were missing and new coral colonies were re-tagged. The general health conditions (size, mortality, bleaching and sediment) were recorded and summarized in Table 3-2, Table 3-3 and Table 3-4 Photos of each tagged coral colonies were taken during the monitoring activities and shown in Appendix A (Photo Plate A, B and C).

3.3 Same as July 2025 monitoring, coral #11, #17 and #18 was recorded with 40%, 10% and 10% mortality respectively. Except the missing corals colonies in Site C2 and Site C8, all other tagged coral colonies showed good health condition during the August 2025 Monitoring survey.

Table 3-2 Sizes, Condition, Mortality, Bleaching and Sediment of 10 Natural Coral Colonies at Control Site C8 during August 2025 Coral Monitoring Survey

Tag #	Species	Size (cm) – Max. Diameter	Condition	Mortality (%)		Bleaching (%)		Sediment (%)	
				Baseline	21-Aug	Baseline	21-Aug	Baseline	21-Aug
1	<i>Favites pentagona</i>	75	Good	0	0	0	0	0	0
2	<i>Porites lutea</i>	64	Good	0	0	0	0	0	0
3	<i>Plesiastrea versipora</i>	38	Good	0	0	0	0	0	0
4	<i>Platygyra carnosus</i>	35	Good	0	0	0	0	0	0
5	<i>Acropora solitaryensis</i>	39	Good	0	0	0	0	0	0
6#	<i>Acropora solitaryensis</i>	48	Good	0	0	0	0	0	0
7#	<i>Bernardopora stutchburyi</i>	19	Good	0	0	0	0	0	0
8	<i>Favites pentagona</i>	24	Good	0	0	0	0	0	0
9	<i>Platygyra carnosus</i>	29	Good	0	0	0	0	0	0
10	<i>Acropora solitaryensis</i>	34	Good	0	0	0	0	0	0

#newly tagged coral colony

Table 3-3 Sizes, Condition, Mortality, Bleaching and Sediment of 10 Natural Coral Colonies at Indirect Impact Site C2 during August 2025 Coral Monitoring Survey

Tag #	Species	Size (cm) – Max. Diameter	Condition	Mortality (%)		Bleaching (%)		Sediment (%)	
				Baseline	21-Aug	Baseline	21-Aug	Baseline	21-Aug
1#	<i>Dipsastraea speciosa</i>	18	Good	0	0	0	0	0	0
2	<i>Favites abdita</i>	43	Good	0	0	0	0	0	0
3	<i>Duncanopsammia peltata</i>	48	Good	0	0	0	0	0	0
4#	<i>Platygyra carnosus</i>	21	Good	0	0	0	0	0	0
5	<i>Favites pentagona</i>	23	Good	0	0	0	0	0	0
6	<i>Plesiastrea versipora</i>	23	Good	0	0	0	0	0	0
7	<i>Dipsastraea rotumana</i>	27	Good	0	0	0	0	0	0
8	<i>Dipsastraea speciosa</i>	20	Good	0	0	0	0	0	0
9	<i>Porites lutea</i>	42	Good	0	0	0	0	0	0

10	<i>Porites lutea</i>	43	Good	0	0	0	0	0	0
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#newly tagged coral colony

Table 3-4 Sizes, Condition, Mortality, Bleaching and Sediment of 10 Natural Coral Colonies at Indirect Impact Site C3 during August 2025 Coral Monitoring Survey

Tag #	Species	Size (cm) – Max. Diameter	Condition	Mortality (%)		Bleaching (%)		Sediment (%)	
				Baseline	21-Aug	Baseline	21-Aug	Baseline	21-Aug
11	<i>Acropora solitaryensis</i>	39	Fair	0	40	0	0	0	0
12	<i>Platygyra carnosa</i>	32	Good	0	0	0	0	0	0
13	<i>Favites pentagona</i>	34	Good	0	0	0	0	0	0
14	<i>Platygyra carnosa</i>	26	Good	0	0	0	0	0	0
15	<i>Dipsastraea veroni</i>	25	Fair	0	0	0	0	0	0
16	<i>Favites flexuosa</i>	21	Good	0	0	0	0	0	0
17	<i>Favites chinensis</i>	57	Good	0	10	0	0	0	0
18	<i>Plesiastrea versipora</i>	24	Good	0	10	0	0	0	0
19	<i>Duncanopsammia peltata</i>	32	Good	0	0	0	0	0	0
20	<i>Platygyra carnosus</i>	26	Good	0	0	0	0	0	0

#newly tagged coral colony

4 Discussion and Conclusion

- 4.1 The August 2025 coral monitoring survey were carried out in the indirect impact area (C2 and C3) and control site (C8) on 21st August 2025. A total of 30 tagged coral colonies (10 at control site and 20 and two indirect impact sites) were monitored. Coral #4 in Site C2 and coral #7 in Site C8 were missing and new coral colonies were tagged. 3 coral colonies with mortality in Site C3 were recorded, all other coral colonies were good in general.
- 4.2 No sediment, bleaching or increased mortality in the general condition of all other tagged coral colonies were observed during the monthly operation phase monitoring period. No deterioration of the coral community was observed in the ecological monitoring results when compared with the baseline ecological monitoring results. There is no AL/LL exceedance during the monitoring period. Photos of each tagged corals colonies were taken and shown in Appendix A (Photo Plates A, B and C).

Figure 1 Two Proposed Indirect Impact Sites (C2 and C3) during Operation Phase

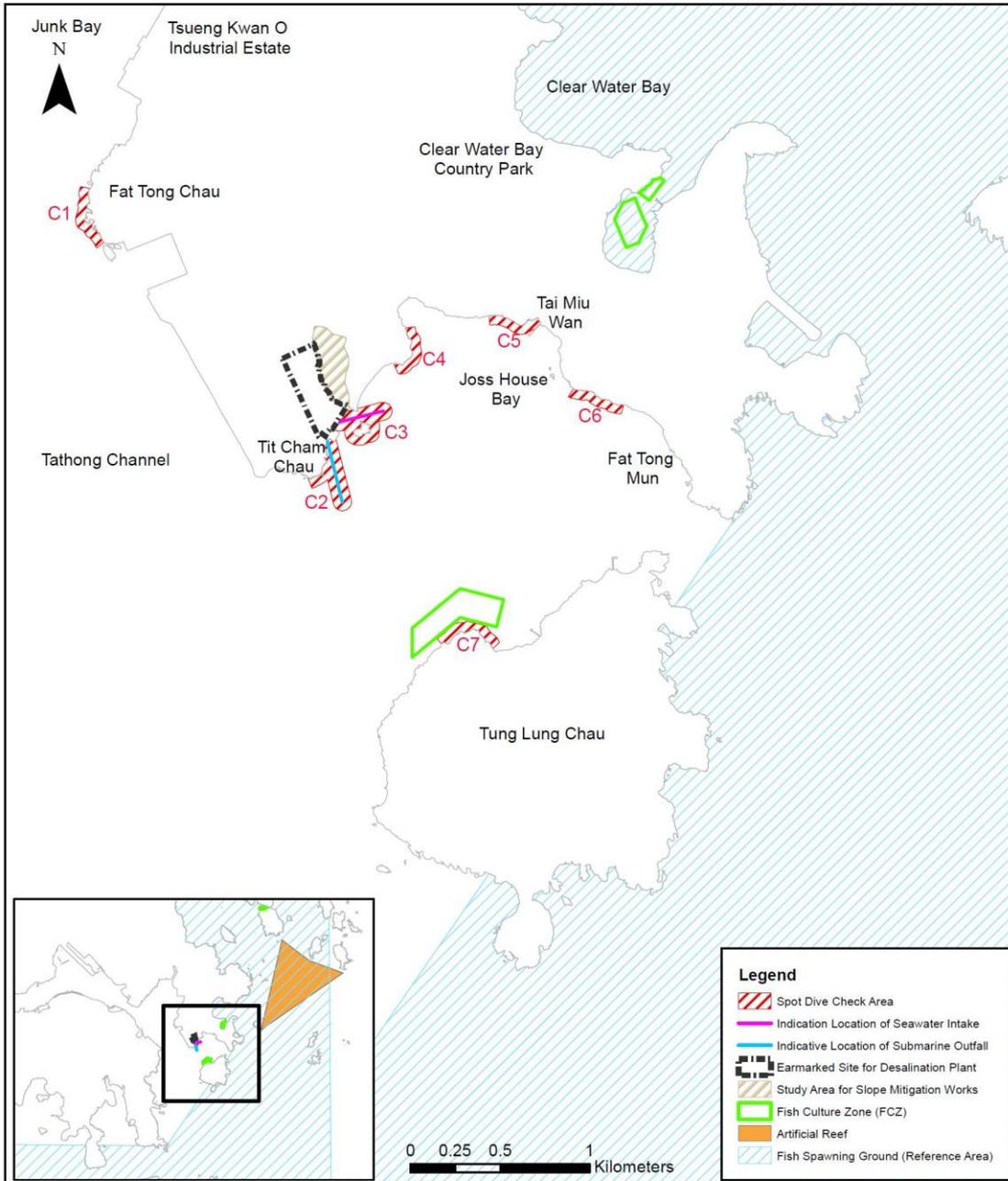


Figure 3.1	Proposed Spot Dive Check Areas	Agreement No. CE 8/2015 (WS)	水務署 Water Supplies Department
		FIRST STAGE OF DESALINATION PLANT AT TSEUNG KWAN O - INVESTIGATION, DESIGN AND CONSTRUCTION	BLACK & VEATCH

Figure 2 Proposed Control Site (C8) during Operation Phase



APPENDIX A
TAGGED CORAL PHOTO

Photo Plate A Tagged Corals at Control Site C8

Tag #	21 August 2025		
#1			
#2			
#3			
#4			
#5			

#6			
#7			
#8			
#9			
#10			

Photo Plate B Tagged Corals at Indirect Impact Site C2

Tag #	21 August 2025	
#1		
#2		
#3		
#4		
#5		

#6			
#7			
#8			
#9			
#10			

Photo Plate C Tagged Corals at Indirect Impact Site C3

Tag #	21 August 2025		
#11			
#12			
#13			
#14			
#15			

#16			
#17			
#18			
#19			
#20			

THE END

Appendix G

Waste Flow Table

Name of Department: WSD

Contract No.: 13/WSD/17

Monthly Summary Waste Flow Table for 2025 (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)
Jan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	38.740
Feb	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.330
Mar	30.520	0.000	0.000	0.000	30.520	0.000	0.000	0.000	0.000	0.000	29.050
Apr	21.290	0.000	0.000	0.000	21.290	0.000	0.000	0.000	0.000	0.000	73.450
May	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	35.720
Jun	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	28.950
Sub-total	51.810	0.000	0.000	0.000	51.810	0.000	0.000	0.000	0.000	0.000	224.240
Jul	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.434	13.330
Aug	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	27.340
Sep											
Oct											
Nov											
Dec											
Total	51.810	0.000	0.000	0.000	51.810	0.000	0.000	0.000	1.434	0.000	264.910

Notes:

- (1) The performance targets are given in Section 1.69 of Specification B
- (2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/ foam from packaging material

Appendix I

Site Inspection Proforma

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

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 07/08/2025 Inspected by: ET: Toby Wan SO: J.Yip WSD: _____
 Contractor: Tommy Law IEC: _____
 Inspection Time: 09:30

Weather							
Condition	<input checked="" type="checkbox"/> Sunny	<input type="checkbox"/> Fine	<input type="checkbox"/> Overcast	<input type="checkbox"/> Drizzle	<input type="checkbox"/> Rain	<input type="checkbox"/> Storm	<input type="checkbox"/> Hazy
Temperature	<input type="text" value="29.3"/> °C	Humidity	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Moderate	<input type="checkbox"/> Low		
Wind	<input type="checkbox"/> Calm	<input checked="" type="checkbox"/> Light	<input type="checkbox"/> Breeze	<input type="checkbox"/> Strong			

Item No.	EIA ref.		N/A	Yes	No	Photo/Remarks
0.00	General					
0.01		Is the current Environmental Permit displayed conspicuously at all vehicle site entrances/exits for public's information at any time?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
0.02		Is ET Leader's log-book kept readily available for inspections?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.00	Air Quality					
1.01	S4.8.2	Is the the treatment and storage of the chemical sludge enclosed inside building structure?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.02	S4.8.2	Is the sludge treatment equipped Forced ventilation system with sufficient air change rate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.03	S4.8.2	Is the exhaust discharge directed away from ASRs as far as practicable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.04	S4.8.2	Is the chemical sludge produced at the desalination plant removed off-site regularly to avoid accumulation of potentially odourous materials on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.05	S4.8.2	Is dewatered sludge to landfill handled and transported properly to minimise odour nuisance to nearby ASRs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.06	S4.8.2	Are the trucks fully enclosed during transporting the dewatered sludge to the landfill to minimise any off-site odour impact during the transportation process?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.00	Waste Management					
2.02	S8.5.2	Is a recording system implemented to record the amount of wastes generated, recycled and disposed of?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.03	S8.5.2	Is a trip-ticket system implemented to monitor the disposal of solid wastes at public filling facilities and landfills?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.04	S8.5.2	Is the Contractor registered as a chemical waste producer?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.05	S8.5.2	Is chemical waste separated from other waste and collected by a licensed chemical waste collector?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.06	S8.5.2	Are trip tickets for chemical waste disposal available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.07	S8.5.2	Is drip tray provided for chemical storage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.08	S8.5.2	Are all containers for chemical waste properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.09	S8.5.2	Is chemical waste storage area used solely for storage of chemical waste and properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

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

Item No.	EIA ref.		N/A	Yes	No	Photo/Remarks
2.10	S8.5.2	Are incompatible chemical wastes stored in different areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.11	S8.5.2	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.12	S8.5.2	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.13	S8.5.2	Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.14	S8.5.2	Are sufficient general refuse disposal/collection points provided on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.15	S8.5.2	Is general refuse disposed of properly and regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.16	S8.5.2	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.17	S8.5.2	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.18	S8.5.2	Is the dewatered sludge met the minimum dry solid content (30%) in the to be disposed of at landfills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.19	S8.5.2	Is a dumping license obtained to deliver public fill to public filling areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.00		Landscape and Visual				
3.01	S11.10 & 11.11	Are Is site hoarding provided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.02	S11.10 & 11.11	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.03	S11.10 & 11.11	Is construction light oriented away from the sensitive receivers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.04	S11.10 & 11.11	Is grass hydroseeding provided to slopes as soon as the completion of works?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.05	S11.10 & 11.11	Are damages to trees outside site boundary due construction works avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.06	S11.10 & 11.11	Are excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.07	S11.10 & 11.11	Are the retained and transplanted tree(s) properly protected and in good conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.08	S11.10 & 11.11	Are surgery works carried out for damaged trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.00		Landfill Gas Hazard				
4.01	S12.7	Are the safety procedures implemented to minimise the risks of fires and explosions, asphyxiation of works and toxicity effects during all works?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.02	S12.7	Are the gas detection equipment and precautions being used during trenching and excavation as well as creation of confined spaces?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.03	S12.7	Are the training with regard to the awareness of potential hazards of working in confined spaces provided from the Contractor to the workers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

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

Item No.	EIA ref.		N/A	Yes	No	Photo/Remarks
4.04	S12.7	Are the safety officers trained with regard to landfill gas and leachate related hazards and presented on the site throughout the works undertaken below grade?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.05	S12.7	Are the all personnel working on site and all visitor made aware of the possibility of ignition of gas, the possible presence of contaminated water and the need to avoid physical contact?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.06	S12.7	Is the monitoring of landfill gas being undertaken in all excavations, manholes, chambers and any confined spaces?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.07	S12.7	Are the monitoring frequency and areas being specified by the safety officers or appropriately qualified person? Are the all measurements being recorded and documented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.08	S12.7	Is the drilling proceeded with adequate care and precautions against the potential hazards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.09	S12.7	Is the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.10	S12.7	Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.11	S12.7	Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.12	S12.7	Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5.00		Overall				
5.01		Is the EM&A properly implemented in general?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

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

Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:

Site Inspection Date : 7 Aug 2025

No major observation was found.

Signatures:

ET
Representative

(Name: *Toby Wan*)

Contractor's
Representative

(Name: *lybw*)

Supervising Officer's
Representative

(Name: *J. YIP*)

IEC's
Representative

(Name:)

WSD's
Representative

(Name:)

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

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 14/08/2025 Inspected by: ET: Toby Wan SO: J.Yip WSD: _____
 Contractor: Tommy Law IEC: _____
 Inspection Time: 09:30

Weather						
Condition	<input type="checkbox"/> Sunny	<input type="checkbox"/> Fine	<input type="checkbox"/> Overcast	<input type="checkbox"/> Drizzle	<input checked="" type="checkbox"/> Rain	<input type="checkbox"/> Storm <input type="checkbox"/> Hazy
Temperature	<input type="text" value="26.3"/> °C	Humidity	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Moderate	<input type="checkbox"/> Low	
Wind	<input type="checkbox"/> Calm	<input checked="" type="checkbox"/> Light	<input type="checkbox"/> Breeze	<input type="checkbox"/> Strong		

Item No.	EIA ref.		N/A	Yes	No	Photo/Remarks
0.00	General					
0.01		Is the current Environmental Permit displayed conspicuously at all vehicle site entrances/exits for public's information at any time?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
0.02		Is ET Leader's log-book kept readily available for inspections?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.00	Air Quality					
1.01	S4.8.2	Is the the treatment and storage of the chemical sludge enclosed inside building structure?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.02	S4.8.2	Is the sludge treatment equipped Forced ventilation system with sufficient air change rate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.03	S4.8.2	Is the exhaust discharge directed away from ASRs as far as practicable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.04	S4.8.2	Is the chemical sludge produced at the desalination plant removed off-site regularly to avoid accumulation of potentially odourous materials on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.05	S4.8.2	Is dewatered sludge to landfill handled and transported properly to minimise odour nuisance to nearby ASRs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.06	S4.8.2	Are the trucks fully enclosed during transporting the dewatered sludge to the landfill to minimise any off-site odour impact during the transportation process?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.00	Waste Management					
2.02	S8.5.2	Is a recording system implemented to record the amount of wastes generated, recycled and disposed of?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.03	S8.5.2	Is a trip-ticket system implemented to monitor the disposal of solid wastes at public filling facilities and landfills?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.04	S8.5.2	Is the Contractor registered as a chemical waste producer?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.05	S8.5.2	Is chemical waste separated from other waste and collected by a licensed chemical waste collector?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.06	S8.5.2	Are trip tickets for chemical waste disposal available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.07	S8.5.2	Is drip tray provided for chemical storage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.08	S8.5.2	Are all containers for chemical waste properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.09	S8.5.2	Is chemical waste storage area used solely for storage of chemical waste and properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

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

Item No.	EIA ref.		N/A	Yes	No	Photo/Remarks
2.10	S8.5.2	Are incompatible chemical wastes stored in different areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.11	S8.5.2	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.12	S8.5.2	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.13	S8.5.2	Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.14	S8.5.2	Are sufficient general refuse disposal/collection points provided on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.15	S8.5.2	Is general refuse disposed of properly and regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.16	S8.5.2	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.17	S8.5.2	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.18	S8.5.2	Is the dewatered sludge met the minimum dry solid content (30%) in the to be disposed of at landfills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.19	S8.5.2	Is a dumping license obtained to deliver public fill to public filling areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.00		Landscape and Visual				
3.01	S11.10 & 11.11	Are Is site hoarding provided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.02	S11.10 & 11.11	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.03	S11.10 & 11.11	Is construction light oriented away from the sensitive receivers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.04	S11.10 & 11.11	Is grass hydroseeding provided to slopes as soon as the completion of works?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.05	S11.10 & 11.11	Are damages to trees outside site boundary due construction works avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.06	S11.10 & 11.11	Are excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.07	S11.10 & 11.11	Are the retained and transplanted tree(s) properly protected and in good conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.08	S11.10 & 11.11	Are surgery works carried out for damaged trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.00		Landfill Gas Hazard				
4.01	S12.7	Are the safety procedures implemented to minimise the risks of fires and explosions, asphyxiation of works and toxicity effects during all works?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.02	S12.7	Are the gas detection equipment and precautions being used during trenching and excavation as well as creation of confined spaces?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.03	S12.7	Are the training with regard to the awareness of potential hazards of working in confined spaces provided from the Contractor to the workers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

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

Item No.	EIA ref.		N/A	Yes	No	Photo/Remarks
4.04	S12.7	Are the safety officers trained with regard to landfill gas and leachate related hazards and presented on the site throughout the works undertaken below grade?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.05	S12.7	Are the all personnel working on site and all visitor made aware of the possibility of ignition of gas, the possible presence of contaminated water and the need to avoid physical contact?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.06	S12.7	Is the monitoring of landfill gas being undertaken in all excavations, manholes, chambers and any confined spaces?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.07	S12.7	Are the monitoring frequency and areas being specified by the safety officers or appropriately qualified person? Are the all measurements being recorded and documented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.08	S12.7	Is the drilling proceeded with adequate care and precautions against the potential hazards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.09	S12.7	Is the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.10	S12.7	Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.11	S12.7	Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.12	S12.7	Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5.00		Overall				
5.01		Is the EM&A properly implemented in general?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

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

Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:

Site Inspection Date : 14 Aug 2025

No major observation was found during site inspection

Signatures:

ET
Representative

(Name: *Toby Lam*)

Contractor's
Representative

(Name: *Tyler*)

Supervising Officer's
Representative

(Name: *J. YIP*)

IEC's
Representative

(Name:)

WSD's
Representative

(Name:)

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

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 28/08/2025 Inspected by: ET: Toby Wan SO: J.Yip WSD: _____
 Contractor: Tommy Law IEC: Serena Shek

Inspection Time: 09:30

Weather							
Condition	<input checked="" type="checkbox"/> Sunny	<input type="checkbox"/> Fine	<input type="checkbox"/> Overcast	<input type="checkbox"/> Drizzle	<input type="checkbox"/> Rain	<input type="checkbox"/> Storm	<input type="checkbox"/> Hazy
Temperature	<input type="text" value="28.9"/> °C	Humidity	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Moderate	<input type="checkbox"/> Low		
Wind	<input type="checkbox"/> Calm	<input checked="" type="checkbox"/> Light	<input type="checkbox"/> Breeze	<input type="checkbox"/> Strong			

Item No.	EIA ref.		N/A	Yes	No	Photo/Remarks
0.00	General					
0.01		Is the current Environmental Permit displayed conspicuously at all vehicle site entrances/exits for public's information at any time?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
0.02		Is ET Leader's log-book kept readily available for inspections?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.00	Air Quality					
1.01	S4.8.2	Is the the treatment and storage of the chemical sludge enclosed inside building structure?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.02	S4.8.2	Is the sludge treatment equipped Forced ventilation system with sufficient air change rate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.03	S4.8.2	Is the exhaust discharge directed away from ASRs as far as practicable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.04	S4.8.2	Is the chemical sludge produced at the desalination plant removed off-site regularly to avoid accumulation of potentially odourous materials on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.05	S4.8.2	Is dewatered sludge to landfill handled and transported properly to minimise odour nuisance to nearby ASRs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.06	S4.8.2	Are the trucks fully enclosed during transporting the dewatered sludge to the landfill to minimise any off-site odour impact during the transportation process?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.00	Waste Management					
2.02	S8.5.2	Is a recording system implemented to record the amount of wastes generated, recycled and disposed of?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.03	S8.5.2	Is a trip-ticket system implemented to monitor the disposal of solid wastes at public filling facilities and landfills?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.04	S8.5.2	Is the Contractor registered as a chemical waste producer?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.05	S8.5.2	Is chemical waste separated from other waste and collected by a licensed chemical waste collector?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.06	S8.5.2	Are trip tickets for chemical waste disposal available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.07	S8.5.2	Is drip tray provided for chemical storage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.08	S8.5.2	Are all containers for chemical waste properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.09	S8.5.2	Is chemical waste storage area used solely for storage of chemical waste and properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

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

Item No.	EIA ref.		N/A	Yes	No	Photo/Remarks
2.10	S8.5.2	Are incompatible chemical wastes stored in different areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.11	S8.5.2	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.12	S8.5.2	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.13	S8.5.2	Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.14	S8.5.2	Are sufficient general refuse disposal/collection points provided on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.15	S8.5.2	Is general refuse disposed of properly and regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.16	S8.5.2	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.17	S8.5.2	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.18	S8.5.2	Is the dewatered sludge met the minimum dry solid content (30%) in the to be disposed of at landfills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.19	S8.5.2	Is a dumping license obtained to deliver public fill to public filling areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.00		Landscape and Visual				
3.01	S11.10 & 11.11	Are Is site hoarding provided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.02	S11.10 & 11.11	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.03	S11.10 & 11.11	Is construction light oriented away from the sensitive receivers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.04	S11.10 & 11.11	Is grass hydroseeding provided to slopes as soon as the completion of works?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.05	S11.10 & 11.11	Are damages to trees outside site boundary due construction works avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.06	S11.10 & 11.11	Are excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.07	S11.10 & 11.11	Are the retained and transplanted tree(s) properly protected and in good conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.08	S11.10 & 11.11	Are surgery works carried out for damaged trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.00		Landfill Gas Hazard				
4.01	S12.7	Are the safety procedures implemented to minimise the risks of fires and explosions, asphyxiation of works and toxicity effects during all works?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.02	S12.7	Are the gas detection equipment and precautions being used during trenching and excavation as well as creation of confined spaces?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.03	S12.7	Are the training with regard to the awareness of potential hazards of working in confined spaces provided from the Contractor to the workers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

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

Item No.	EIA ref.		N/A	Yes	No	Photo/Remarks
4.04	S12.7	Are the safety officers trained with regard to landfill gas and leachate related hazards and presented on the site throughout the works undertaken below grade?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.05	S12.7	Are the all personnel working on site and all visitor made aware of the possibility of ignition of gas, the possible presence of contaminated water and the need to avoid physical contact?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.06	S12.7	Is the monitoring of landfill gas being undertaken in all excavations, manholes, chambers and any confined spaces?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.07	S12.7	Are the monitoring frequency and areas being specified by the safety officers or appropriately qualified person? Are the all measurements being recorded and documented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.08	S12.7	Is the drilling proceeded with adequate care and precautions against the potential hazards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.09	S12.7	Is the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.10	S12.7	Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.11	S12.7	Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
4.12	S12.7	Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5.00		Overall				
5.01		Is the EM&A properly implemented in general?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

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

Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:

Site Inspection Date : 28 Aug 2025

No major observation was found.

Signatures:

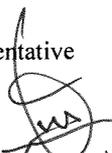
ET
Representative

Contractor's
Representative

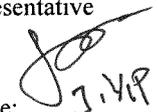
Supervising Officer's
Representative

IEC's
Representative

WSD's
Representative

(Name: 
Lobyan)

(Name: 
Lobyan)

(Name: 
J. Yip)

(Name: 
Shek)

(Name:)

Appendix J

Complaint Log

Statistical Summary of Environmental Complaints

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 31 August 2025	0	2	N/A

Statistical Summary of Environmental Summons

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Details
1 – 31 August 2025	0	0	N/A

Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Details
1 – 31 August 2025	0	0	N/A