

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

Attention: Mr W K Lau

Your reference:

Our reference:

HKWSD202/50/106892

Date:

13 November 2020

BY EMAIL & POST

(email: simon_wk_lau@wsd.gov.hk)

Dear Sirs

Agreement No. CE 5/2019 (EP)
Independent Environmental Checker for First Stage of
Tseung Kwan O Desalination Plant– Investigation
Verification of Monthly EM&A Report No.8 (October 2020)

We refer to emails of 9, 11 and 12 November 2020 attaching Monthly EM&A Report No.8 for the captioned project prepared by the ET.

We have no further comments and hereby verify the Monthly EM&A Report No.8 in accordance with Clause 3.5 of the Environmental Permit no. EP-503/2015/A and Further Environmental Permit no. FEP-01/503/2015/A.

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

Yours faithfully
ANEWR CONSULTING LIMITED

Independent Environmental Checker

LYMA/CYYR/lsmt

Web: www.anewr.com



ISO 9001 : 2015 Certificate No.: CC 3988









Unit C, 11/F, Ford Glory Plaza, Nos. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon.



Tel. : (852) 2698 6833 Fax.: (852) 2698 9383



Contract No. 13/WSD/17

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

Monthly EM&A Report No.8 (Period from 1 October to 31 October 2020)

Document No.

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	Prepared by:	Reviewed by:	Certified by:
Name	Charlene LAI	Nelson TSUI	Jacky LEUNG
Position	Environmental Team	Environmental Team	Environmental Team
Member		Member	Leader
Signature		74	#
Date:	13/11/2020	13/11/2020	13/11/2020

Contract No. 13/WSD/17 Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant Monthly EM&A Report No.8



REVISION HISTORY

REV.	DESCRIPTION OF MODIFICATION	DATE
A	First Issue for Comments	14 November 2020



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EXECUTIVE SUMMARY

INTRODUCTION

- A1. The Project, Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant (TKODP), is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO) and is currently governed by a Further Environmental Permit (EP No. FEP 01/503/2015/A) for the construction and operation of the Project.
- A2. In accordance with the Updated Environmental Monitoring and Audit (EM&A) Manual for the Project, EM&A works for marine water quality, noise, waste management and ecology should be carried out by Environmental Team (ET), Acuity Sustainability Consulting Limited (ASCL), during the construction phase of the Project.
- A3. This is the 8th Monthly EM&A Report, prepared by ASCL, for the Project summarizing the monitoring results and audit findings of the EM&A programme at and around Tseung Kwan O Area 137 (TKO 137) during the reporting period from 1 October 2020 to 31 October 2020.
- A4. The EM&A programme for this contract has covered environmental monitoring on construction noise level at selected NSRs and Contractor's environmental performance auditing in the aspects of construction dust, construction noise, water quality, waste management, Landscape and Visual and Ecology.

SUMMARY OF MAIN WORKS UNDERTAKEN & KEY MITIGATION MEASURES IMPLEMENTED

A5. Key activities carried out in this reporting period for the Project included the following:

- Land Survey;
- Access Road Construction;
- Construction of 132kV substation;
- Construction of ActifDAFF footing and perimeter wall;
- Construction of RO footing and excavation;
- Construction for Product Water Storage Tank footing;
- Excavation and Installation of temporary soil nail at Product Water Storage Tank;
- Excavation and ELS installation for combine shaft.

A6. The major environmental impacts brought by the above construction works include:

- Construction dust and noise generation from the ground investigation works, access road construction, pre-boring and installation of sheetpiles and excavation works
- Waste generation from the construction activities



- A7. The key environmental mitigation measures implemented for the Project in this reporting period associated with the above construction works include:
 - Dust suppression by regular wetting and water spraying for construction works
 - Reduction of noise from equipment and machinery on-site
 - Sorting and storage of general refuse and construction waste

SUMMARY OF EXCEEDANCE & INVESTIGATION & FOLLOW-UP

- A8. No noise monitoring was conducted during the reporting period since there are no project-related construction activities undertaken within a radius of 300m from the monitoring locations. No project-related exceedance of the Action Level was recorded during the reporting period.
- A9. No water quality monitoring was conducted in the reporting month since the commencement of marine construction and dredging activities for the Project are scheduled in January 2020 the earliest. No project-related exceedance of the Action Level was recorded during the reporting period.
- A10.Weekly site inspections of the construction work by ET were carried out on 6, 14, 20 & 30 October 2020 to audit the mitigation measures implementation status. Bi-weekly joint site inspection was carried out on 14 & 30 October 2020 by ET and IEC. Observations were recorded in the site inspection checklists and provided to the contractors together with the appropriate follow-up actions where necessary.

COMPLAINT HANDLING AND PROSECUTION

- A11. No project-related environmental complaint was received during the reporting period.
- A12. Neither notifications of summons nor prosecution was received for the Project.

REPORTING CHANGE

A13. There was no change to be reported that may affect the on-going EM&A programme.

SUMMARY OF UPCOMING KEY ISSUES AND KEY MITIGATION MEASURES

A14.Key activities anticipated in the next reporting period for the Project will include the following:

- Land Survey;
- Access Road Construction;
- ELS installation and bulk excavation at combine shaft;
- Construction of 132kV substation:
- Construction of ActifDAFF footing and perimeter wall;
- Construction of RO/electrical building footing and ground floor slab;

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- Construction for Product Water Storage Tank footing;
- Excavation and Installation of temporary soil nail at Product Water Storage Tank.

A15. The major environmental impacts brought by the above construction works will include:

- Construction dust and noise generation from GI works, access road construction, excavation works and installation of temporary soil nails;
- Waste generation from construction activities

A16. The key environmental mitigation measures for the Project in the coming reporting period associated with the above construction works will include:

- Dust suppression by regular wetting and water spraying for construction works
- Reduction of noise from equipment and machinery on-site
- Sorting and storage of general refuse and construction waste



1. BASIC PROJECT INFORMATION

1.1. BACKGROUND

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 (DPTKO) under Contract No. 13/WSD/17 (the Project).

Acuity Sustainability Consulting Limited (ASCL) is commissioned by AJCJV to undertake the Environmental Team (ET) services as required and/or implied, both explicitly and implicitly, in the Environmental Permit (EP), Environmental Impact Assessment Report (EIA Report) (Register No. AEIAR-192/2015) and Environmental Monitoring and Audit Manual (EM&A Manual) for the 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.

Pursuant to the Environmental Impact Assessment Ordinance (EIAO), the Director of Environmental Protection granted the Environmental Permit (No. EP-01/503/2015) and Variation of Environmental Permit (No. EP-01/503/2015/A) to Water Supplies Department (WSD); and granted the Further Environmental Permit (No. FEP-01/503/2015/A) to AJCJV for the Project.

1.2. THE REPORTING SCOPE

This is the 8th Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 1 October to 31 October 2020.

1.3. PROJECT ORGANIZATION

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

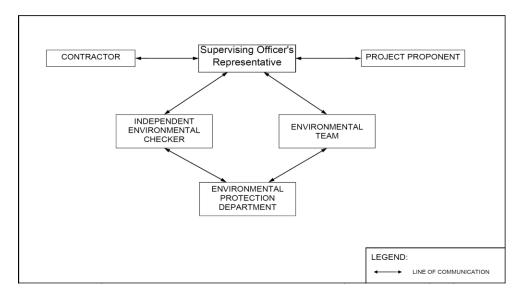


Figure 1.1 Project Organization Chart

1



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.
Project Proponent	SE/CM2	Benny Lam	2634-3573
	Project Manager	Christina Ko	2608-7302
Supervising Officer (Black & Veatch)	Chief Resident Engineer	Roger Wu	6343-1002
The Jardine Engineering Corporation,	Project Manager	Stephen Yeung	2807-4665
Limited, China State Construction Engineering (Hong Kong) Limited and Acciona Agua, S.A. Trading	Environmental Monitoring Manager	Brian Kam	9456-9541
Acuity Sustainability Consulting Limited	Environmental Jacky Leung Team Leader		2698-6833
ANewR Consulting Limited	Independent Environmental Checker (IEC)	Adi Lee	2618-2831

1.4. SUMMARY OF CONSTRUCTION WORKS

Details of the major construction activities undertaken in this reporting period are shown in below. The construction programme is presented in **Appendix A**.



Key activities carried out in this reporting period for the Project included the following:

- Land Survey;
- Access Road Construction;
- Construction of 132kV substation;
- Construction of ActifDAFF footing and perimeter wall;
- Construction of RO footing and excavation;
- Construction for Product Water Storage Tank footing;
- Excavation and Installation of temporary soil nail at Product Water Storage Tank;
- Excavation and ELS installation for combine shaft.

1.5. SUMMARY OF ENVIRONMENTAL STATUS

A summary of the valid permits, licences, and /or notifications on environmental protection for this Project is presented in **Table 1.2**.

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

Permit/ Licenses/	Reference	Validity Period	Remarks
Notification			
Environmental Permit	FEP - 01/503/2015/A	Throughout the	
		Contract	
Notification of	Ref. No.: 451539	30/12/2019 -	
Construction Works		30/03/2023	
under the Air Pollution			
Control (Construction			
Dust) Regulation (Form			
NA)			
Wastewater Discharge	WT00035775-2020	24/07/2020 -	
Licence		31/07/2025	
Chemical Waste	5213-839-A2987-01	Throughout the	
Producer Registration		Contract	
Construction Noise	GW-RE0474-20	04/06/2020 -	
Permit (24 hours)		03/12/2020	
Construction Noise	GW-RE0784-20	01/10/2020 -	
Permit (24 hours)		31/03/2021	
Billing Account for	7036276	Throughout the	
Disposal of		Contract	
Construction Waste			

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



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

Parameters	Status
Water Quality	
Baseline Monitoring under EM&A	The baseline water quality monitoring was conducted
Manual	between 12 May 2020 to 6 Jun 2020
Impact Monitoring	The impact water quality monitoring has been scheduled
	after the commencement of marine construction works
Noise	
Baseline Monitoring	The baseline noise monitoring result has been reported in
	Baseline Monitoring Report and submitted to EPD under EP
	Condition 3.4
Impact Monitoring	On-going
Waste Management	
Mitigation Measures in Waste Monitoring	On-going
Plan	
Environmental Audit	
Site Inspection covering Measures of Air	On-going
Quality, Noise Impact, Water Quality,	
Waste, Ecological Quality, Fisheries,	
Landscape and Visual	

The impact monitoring schedule for the reporting month to be shown at Appendix D is intentionally left blank since no impact monitoring was conducted in the reporting month.

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.

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



2. Noise

2.1. MONITORING REQUIREMENTS

To ensure no adverse noise impact, noise monitoring is recommended to be carried out within 300m radius from the nearby noise sensitive receivers (NSRs), during construction phase. The NSRs selected as monitoring station are (i) NSR4 – Creative Secondary School, (ii) NSR24 – PLK Laws Foundation College, and (iii) NSR31 – School of Continuing and Professional Studies – CUHK respectively.

In accordance with the EM&A Manual, baseline noise level at the noise monitoring stations were established as presented in the Baseline Monitoring Report. Impact noise monitoring will be conducted once per week in the form of 30-minutes measurements Leq, L10 and L90 levels recorded at each monitoring station between 0700 and 1900 hours on normal weekdays.

Referring to EM&A manual Section 4.1.2, the impact noise monitoring should be carried out at all the designated monitoring stations when there are project-related construction activities undertaken within a radius of 300m from the monitoring stations.

No impact monitoring for noise impact was conducted in the reporting month due to the overly distant monitoring station from the works location, where they were farther than 1 km from the closet monitoring station NSR4 to the works location.

Impact noise monitoring will be conducted weekly in the reporting period between 0700-1900 hours on normal weekdays. No construction works were carried out during 1900-0700 hours in all days or any time on Sundays or general holidays during the reporting period.

Construction noise level measured in terms of the A-weighted equivalent continuous sound pressure level (LAeq). Leq $_{30 min}$ was used as the monitoring parameter for the time period between 0700 and 1900 hours on normal weekdays. **Table 2.1** summarizes the monitoring parameters, frequency and duration of the impact noise monitoring.

Table 2.1 Noise Monitoring Parameters, Time, Frequency and Duration

Time	Duration	Interval	Parameters
Daytime: 0700-1900	Day time: 0700-1900 (during normal weekdays)	Continuously in $L_{eq 5min}/L_{eq 30min}$ (average of 6 consecutive $L_{eq 5min}$)	$\begin{array}{c} L_{eq~30min} \\ L_{10~30min} \ \& \ L_{90~30min} \end{array}$

2.2. Monitoring Locations

The monitoring locations should normally be made at a point 1m from the exterior of the NSRs building façade and be at a position 1.2m above the ground. A correction of +3dB(A) should be made to the free-field measurements.

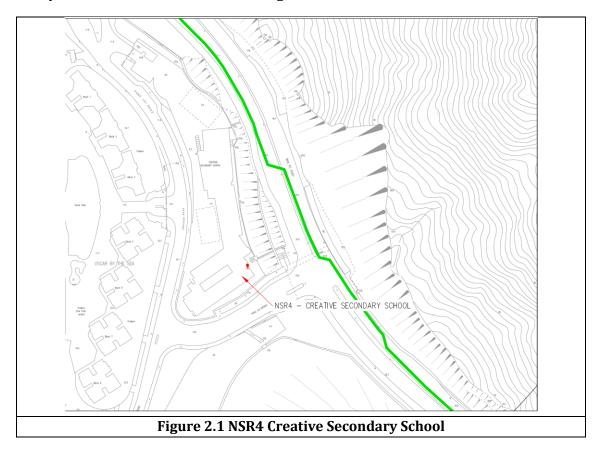


According to the environmental findings detailed in the EIA report and Baseline Monitoring Report, the designated locations for the construction noise monitoring are listed in **Table 2.2** below.

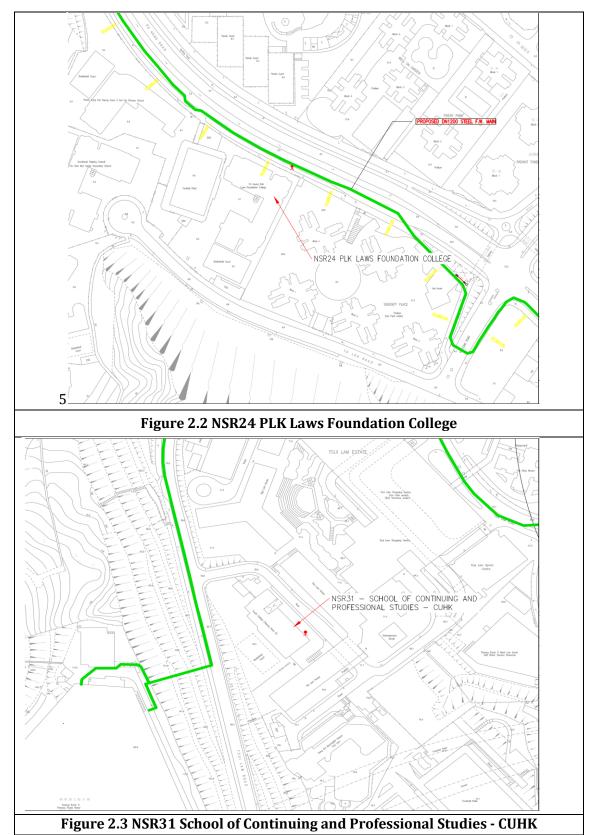
Table 2.2 Noise Sensitive Receivers

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

The monitoring locations should normally be made at a point 1m from the exterior of the NSRs building façade and be at a position 1.2m above the ground. A correction of +3dB(A) should be made to the free-field measurements. Three noise monitoring locations for impact monitoring at the nearby sensitive receivers are shown in **Figure 2.1-2.3**.









2.3. IMPACT MONITORING METHODOLOGY

Integrated sound level meter shall be used for the noise monitoring. The meter shall be in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications. Immediately prior to and following each noise measurement the accuracy of the sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration levels before and after the noise measurements agree to within 1.0 dB(A). Calibration certificates of the instruments used to be shown at **Appendix F** are intentionally left blank since no impact monitoring equipment was used in the reporting month.

Noise measurements shall not be made in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

Table 2.3 Impact Noise Monitoring Equipment

Equipment	Brand and Model	Detection Limit
Sound Level Meter	Nti XL2	30-130 dB(A)
Sound Level Meter Calibrator	Rion NC-74	Nil
Pocket Wind Meter Anemometer	Kestrel 1000 Wind Meter	Nil

2.4. ACTION AND LIMIT LEVELS

The Action/Limit Levels in line with the criteria of Practice Note for Professional Persons (ProPECC PN 2/93) "Noise from Construction Activities – Non-statutory Controls" and Technical Memorandum on Environmental Impact Assessment Process issued by HKSAR Environmental Protection Department ["EPD"] under the Environmental Impact Assessment Ordinance, Cap 499, S.16 are presented in **Table 2.4**.

Table 2.4 Action and Limit Levels for Noise per Updated EM&A Manual

Time Period				Ac	ction		Li	mit (dB(A))
0700-1900 weekdays	on	normal	-	the	eceived	cumented from any sensitive	65	(A) for scho dB(A) nation peri	during

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

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



2.5. MONITORING RESULTS AND OBSERVATIONS

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

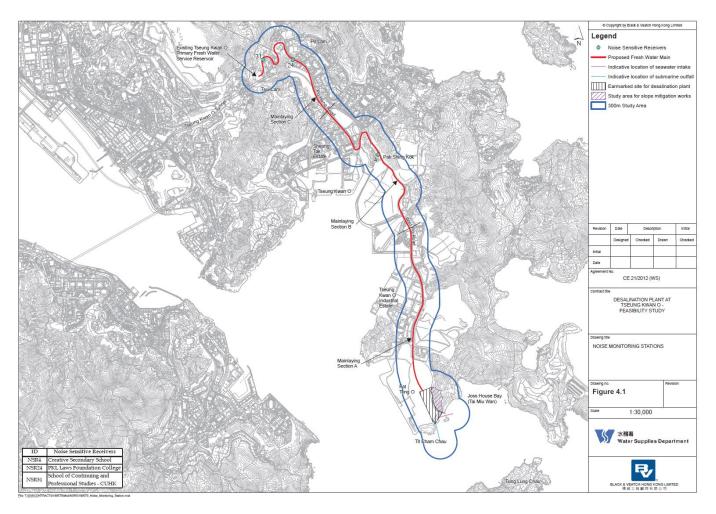


Figure 2.4 Site Layout Plan with Noise Sensitive Receivers and Desalination Plant

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3. WATER QUALITY

In accordance with the recommendations of the EIA, water quality EM&A is required during dredging for the submarine pipelines and, during operation phase. In addition, baseline water quality monitoring will be required prior to the commencement of marine construction activities. The following Section provides details of the water quality monitoring to be undertaken by the Environmental Team (ET) to verify the distance of sediment and brine plume dispersion and to identify whether the potential exists for any indirect impacts to occur to ecological sensitive receivers. The water quality monitoring programme will be carried out to allow any deteriorating water quality to be readily detected and timely action taken to rectify the situation. The status and locations of water quality sensitive receivers and the marine works location may change after issuing this Document. If required, the ET in consultation with IEC will propose updated monitoring locations and seek approval from EPD.

Water quality monitoring for the Project can be divided into the following stages:

- · Dredging activities during construction phase;
- · Discharge of effluent from main disinfection during construction phase;
- · Operation phase first year upon commissioning; and,
- · Continuous monitoring of effluent quality.

In addition, the marine works contractor is required to complete a silt curtain efficiency test for the combined use of floating silt curtain type and cage type silt curtain for dredging at seawater intake to confirm the silt curtain reduction efficiency assumptions of the assessment. The details of testing plan together with the silt curtain deployment plan updated testing plan shall be submitted by the ET to seek approval from the IEC and EPD.

3.1. IMPACT MONITORING METHODOLOGY

3.1.1. WATER QUALITY PARAMETERS

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



Table 3.1 Parameters measured in the baseline marine water quality monitoring

Parameters	Unit	Abbreviation				
In-situ measurements						
Dissolved oxygen	mg/L	DO				
Temperature	οС	-				
рН	-	-				
Turbidity	NTU	-				
Salinity	0/00	-				
Total Residual Chlorine NOTE1	mg/L	TRC				
Laboratory measurements						
Suspended Solids	mg/L	SS				
Iron-Soluble NOTE2	mg/L	Fe				
Anti-scalant as Reactive Phosphorus NOTE2	mg/L	PO ₄ as P-				

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

NOTE 2: The testing methods shall be submitted to EPD for approval prior to the commencement of monitoring programme

In addition to the water quality parameters, other relevant data will also be 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.

3.1.2. MONITORING EQUIPMENT

For water quality monitoring, the following equipment will be used:

Dissolved Oxygen and Temperature Measuring Equipment - The instrument will be a portable, weatherproof dissolved oxygen measuring instrument complete with cable, sensor, comprehensive operation manuals, and will be operable from a DC power source. It will be 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 shall have 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

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cables shall be 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 will be a portable, weatherproof turbidity-measuring unit complete with cable, sensor and comprehensive operation manuals. The equipment will be operated from a DC power source, it will have a photoelectric sensor capable of measuring turbidity between 0 - 1000 NTU and will be 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 will be 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) will be 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 should be suitably calibrated. The ET shall seek approval for their proposed equipment with the client prior to deployment.

Current Velocity and Direction – No specific equipment is recommended for measuring the current velocity and direction. The environmental contractor shall seek approval of their proposed equipment with the client prior to deployment.

Positioning Device – A Global Positioning System (GPS) shall be used during monitoring to allow accurate recording of the position of the monitoring vessel before taking measurements. The Differential GPS, or equivalent instrument, should be 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, will be used (e.g. Kahlsico Water Sampler 13SWB203 or an approved similar instrument). The water sampler will have 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 for Discharge of Sterilization Water - Total residual chlorine (TRC) shall be measured in-situ using a handheld colorimeter with its testing toolkits.

3.1.3. SAMPLING / TESTING PROTOCOLS

All in situ monitoring instruments will be 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 will be checked with certified standard solutions before each use.



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

3.1.4. LABORATORY MEASUREMENT AND ANALYSIS

All laboratory work shall be carried out in a HOKLAS accredited laboratory. Sufficient volume of each water sample shall be collected at the monitoring stations for carrying out the laboratory analyses. Using chain of custody forms, collected water samples will be transferred to an HOKLAS accredited laboratory for immediate processing. The determination work shall start within the next working day after collection of the water samples. The laboratory measurements shall be provided to the client within 5 working days of the sampling event. Analytical methodology and sample preservation of other parameters will be 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 submitted information should include pre-treatment procedures, instrument use, Quality Assurance/Quality Control (QA/QC) details (such as blank, spike recovery, number of duplicate samples per-batch etc), detection limits and accuracy. The QA/QC details shall be in accordance with requirements of HOKLAS or another internationally accredited scheme.

Parameters for laboratory measurements, their standard methods and their detection limits are presented in **Table 3.2**.

Table 3.2 Laboratory measurements, standard methods and corresponding detection limits of marine water quality monitoring

Parameters	Standard Methods	Detection Limit	Reporting Limit	Precision
Dissolved oxygen (mg/L)	Instrumental, CTD	0.1	-	±25%
Temperature (°C)	Instrumental, CTD	0.1	-	±25%
рН	Instrumental, CTD	0.1	-	±25%
Turbidity (NTU)	Instrumental, CTD	0.1	-	±25%
Salinity (0/00)	Instrumental, CTD	0.1	-	±25%
Suspended Solids (mg/L)	APHA 17 th Ed 2540D	1.0	2.0	±17%
Total Residual Chlorine (mg/L)	APHA 21st Ed 4500 - Cl G NOTE1	0.1NOTE1	0.2NOTE1	±10% NOTE1
Iron-soluble	USEPA 6010C NOTE 1	0.2NOTE1	0.2 ^{NOTE1}	±25%NOTE1

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Parameters	Standard Methods	Detection Limit	Reporting Limit	Precision
Anti-scalant as Reactive phosphorus	APHA 4500P: B&F NOTE1	0.01 ^{NOTE1}	0.01 ^{NOTE1}	±25% ^{NOTE1}

NOTE1: The testing methods, Quality Assurance/Quality Control (QA/QC) details, detection limits and accuracy shall be submitted to EPD for approval prior to the commencement of monitoring programme.

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

3.1.5. MONITORING LOCATION

The water quality monitoring locations for baseline in accordance to the EM&A Manual and Contract Specification are shown in Figure 3.1 and Figure 4.1 respectively, and detailed in Table 3.3 below. A schedule for water quality monitoring shall be prepared by the ET and approved by IEC and EPD prior to the commencement of the monitoring.

Table 3.3 Location of Baseline Water Quality Monitoring Station

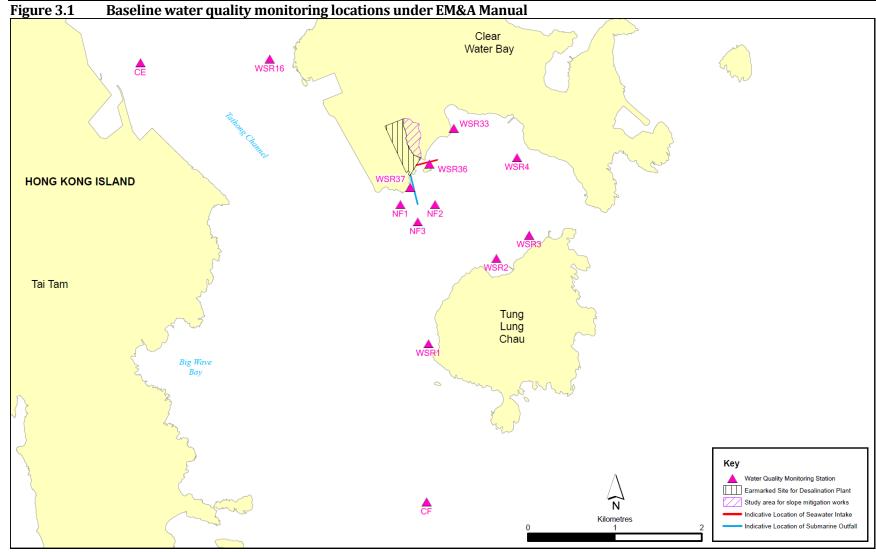
Station	Easting	Northing	Description
CE	843550	815243	Upstream control station at ebb tide
CF	846843	810193	Upstream control station at flood tide
WSR1	846864	812014	Ecological sensitive receiver at Tung Lung Chau
WSR2	847645	812993	Fisheries sensitive receiver at Tung Lung Chau
WSR3	848023	813262	Ecological 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

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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.





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3.1.6. SAMPLING FREQUENCY

During periods when there are dredging works, impact monitoring should be undertaken at the monitoring stations as shown in **Figure 3.1** and **Table 3.3** three days per week during the construction phase after the commencement of marine construction works and dredging activities. Monitoring at each station would be undertaken at both mid-ebb and mid-flood tides on the same day. The tidal range selected for the baseline monitoring will be at least 0.5 m for both flood and ebb tides as far as practicable. The interval between two sets of monitoring would not be 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.

The monitoring location/position, time, water depth, water temperature, salinity, weather conditions, sea conditions, tidal stage, special phenomena and work underway at the marine works site will be recorded.

3.1.7. SAMPLING DEPTHS & REPLICATION

For baseline monitoring, each station will be sampled and measurements/ water samples will be taken at three depths, 1 m below the sea surface, mid-depth and 1 m above the seabed. For stations that are less than 3 m in depth, only the mid depth sample shall be taken. For stations that are less than 6 m in depth, only the surface and seabed sample shall be taken. For in situ measurements, duplicate readings shall be made at each water depth at each station. Duplicate water samples shall be collected at each water depth at each station.

3.2. Monitoring Programme

The ET of the Project had conducted the baseline water monitoring between 12 May 2020 to 6 Jun 2020 at the thirteen designated monitoring stations and the six designated monitoring at waters near TKO in accordance with the EM&A Manual and Contract Specification respectively. The monitoring results was presented in Baseline Water Quality Monitoring Report separately.

The commencement of marine construction and dredging activities for the Project are scheduled in January 2020 the earliest. The impact water monitoring shall be scheduled after the commencement of marine construction and dredging activities. Hence, no water monitoring was conducted during the reporting month.



4. WASTE

The waste generated from this Project 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 project 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 Project, the quantities of different types of waste generated in the reporting month are summarised in **Table 4.1**. Details of cumulative waste management data are presented as a waste flow table in **Appendix H.**

Table 4.1 Quantities of Waste Generated from the Project during September 2020

	Actu	al Quantities	of Inert C&I	O Materials G	enerated Mo	nthly	Actual Quantities of C&D Wastes Generated Month					
Reporting Month	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)	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)	
October 2020	0	0	0	0	0	0	7.050	0.040	0.020	0	39.210	

Notes:

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



5. Landfill Gas Monitoring

5.1. Monitoring Requirement

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

5.2. Monitoring Location

Monitoring of oxygen, methane, carbon dioxide and barometric pressure would be performed for excavations at 1m depth or more within the consultation Zone.

During construction of works within the consultation zones, excavations of 1m depth or more was monitored:

- At the ground surface before excavation commences;
- Immediately before any worker enters the excavation;
- At the beginning of each working day for the entire period the excavation remains open; and
- Periodically through the working day whilst workers are in the excavation.

For excavations between 300mm and 1m deep, measurements should be carried out:

- Directly after the excavation has been completed; and
- Periodically whilst the excavation remains open.

5.3. MONITORING PROGRAMME

For the part of the desalination plant and the indicative area of natural slope mitigation works fall within the SENT Landfill Extension Consultation Zone in this contract, since the SENT Landfill Extension is still under construction, the Landfill gas monitoring shall be conducted after the commencement of operation of the SENT Landfill Extension which will be 2021 Quarter 3 according to the latest construction programme shown in the monthly EM&A Report of SENT Landfill Extension. The Contractor's safety officer shall keep review the necessity of landfill gas monitoring during the construction stage. No landfill gas monitoring was conducted in the reporting period.



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

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

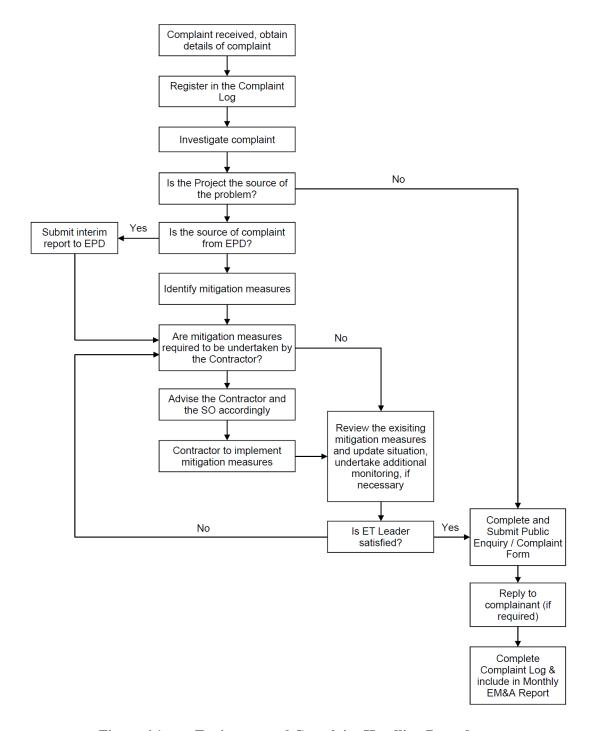


Figure 6.1 Environmental Complaint Handling Procedures

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No noise monitoring was conducted during the reporting period since there are no project-related construction activities undertaken within a radius of 300m from the monitoring locations.

No impact water quality monitoring was conducted in the reporting month since the commencement of marine construction and dredging activities for the Project are scheduled in January 2020 the earliest.

No project-related exceedance of the Action Level was recorded during the reporting period.

No notification of summons and prosecution was received in the reporting period.

Statistics on complaints and regulatory compliance are summarized in **Appendix J**.



7. EM&A SITE INSPECTION

Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting period, site inspections were carried out on 6, 14, 20 & 30 October 2020 at the site portions list in **Table 6.1** below.

Table 7.1 Summaries of Site Inspection Record

Date	Inspected Site Portion	Time
6 October 2020	TKO 137	14:30 – 17:00 PM
14 October 2020	TKO 137	14:35 – 16:30 PM
20 October 2020	TKO 137	14:33 – 17:00 PM
30 October 2020	TKO 137	09:30 – 12:33 AM

Two joint site inspection with IEC were carried out on 14 & 30 October 2020.

Environmental deficiencies were observed during weekly site inspection. Key observations during the site inspections and during the reporting period are summarized in **Table 7**.2.

Table 7.2 Site Observations

Date	Date Environmental Observations						
6 October 2020	Observation(s) and Recommendation(s)	Nil.					
(Site inspection)	1. No major observation was observed.						
14 October 2020	Observation(s) and Recommendation(s)	Nil.					
(Site inspection)	1. No major observation was observed.						
20 October 2020 (Site inspection)	Observation(s) and Recommendation(s) 1. Stock of more than 20 bags of cement/dry pulverized fuel ash was not covered /enclosed in an area with 3 sides covered at Combine Shaft Area. (Observation) 2. Housekeeping at the chemical drip tray was reminded. Emptied chemical containers should be removed at Combined Shat Area and off ActifDAFF. (Reminder) 3. Construction activities involving dusty materials have to be sprayed with water/other dust suppression measures to limit dust emission (Reminder)	1.Cover was provided.					
30 October 2020 (Site inspection)	Observation(s) and Recommendation(s) 1. Housekeeping was reminded as C&D materials and general wastes were observed not stored properly in designated containers at ActifDAFF and RO areas. (Observation)	1. Housekeeping was conducted.					

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

Site inspection proforma of the reporting period is provided in **Appendix I**.



8. FUTURE KEY ISSUES

Works to be undertaken in the next reporting month are:

- Land Survey;
- Access Road Construction;
- ELS installation and bulk excavation at combine shaft;
- Construction of 132kV substation:
- Construction of ActifDAFF footing and perimeter wall;
- Construction of RO/electrical building footing and ground floor slab;
- Construction for Product Water Storage Tank footing;
- Excavation and Installation of temporary soil nail at Product Water Storage Tank.

The major environmental impacts brought by the above construction works will include:

- Construction dust and noise generation from GI works, access road construction; excavation works and construction works
- Waste generation from construction activities

The key environmental mitigation measures for the Project in the coming reporting period associated with the above construction works will include:

- Dust suppression by regular wetting and water spraying for construction works
- Reduction of noise from equipment and machinery on-site
- Sorting and storage of general refuse and construction waste

Referring to EM&A Manual Section 4.1.2, the impact noise monitoring should be carried out at all the designated monitoring stations when there are project-related construction activities undertaken within a radius of 300m from the monitoring stations.

The impact monitoring schedule for the next reporting month to be shown at **Appendix K** is intentionally left blank since no impact monitoring will be conducted in the next reporting month.



9. CONCLUSIONS AND RECOMMENDATIONS

This is the 8th Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 1 October to 31 October 2020, in accordance with the EM&A Manual and the requirement under FEP-01/503/2015/A.

No noise monitoring was conducted in the reporting period due to the over distant monitoring station from the works location, in which construction activities were not undertaken within a radius of 300m from the monitoring locations.

No impact water monitoring was conducted in the reporting period due to no marine construction works and dredging activities were conducted in the reporting period.

No project-related exceedance of the Action / Limit Level was recorded during the reporting period.

Weekly environmental site inspection was conducted during the reporting period. Minor deficiency was observed during site inspection and was rectified. The environmental performance of the project was therefore considered satisfactory.

According to the environmental site inspections performed in the reporting month, the Contractor is reminded to pay attention on maintaining proper materials storage.

No environmental complaint was received in the reporting period.

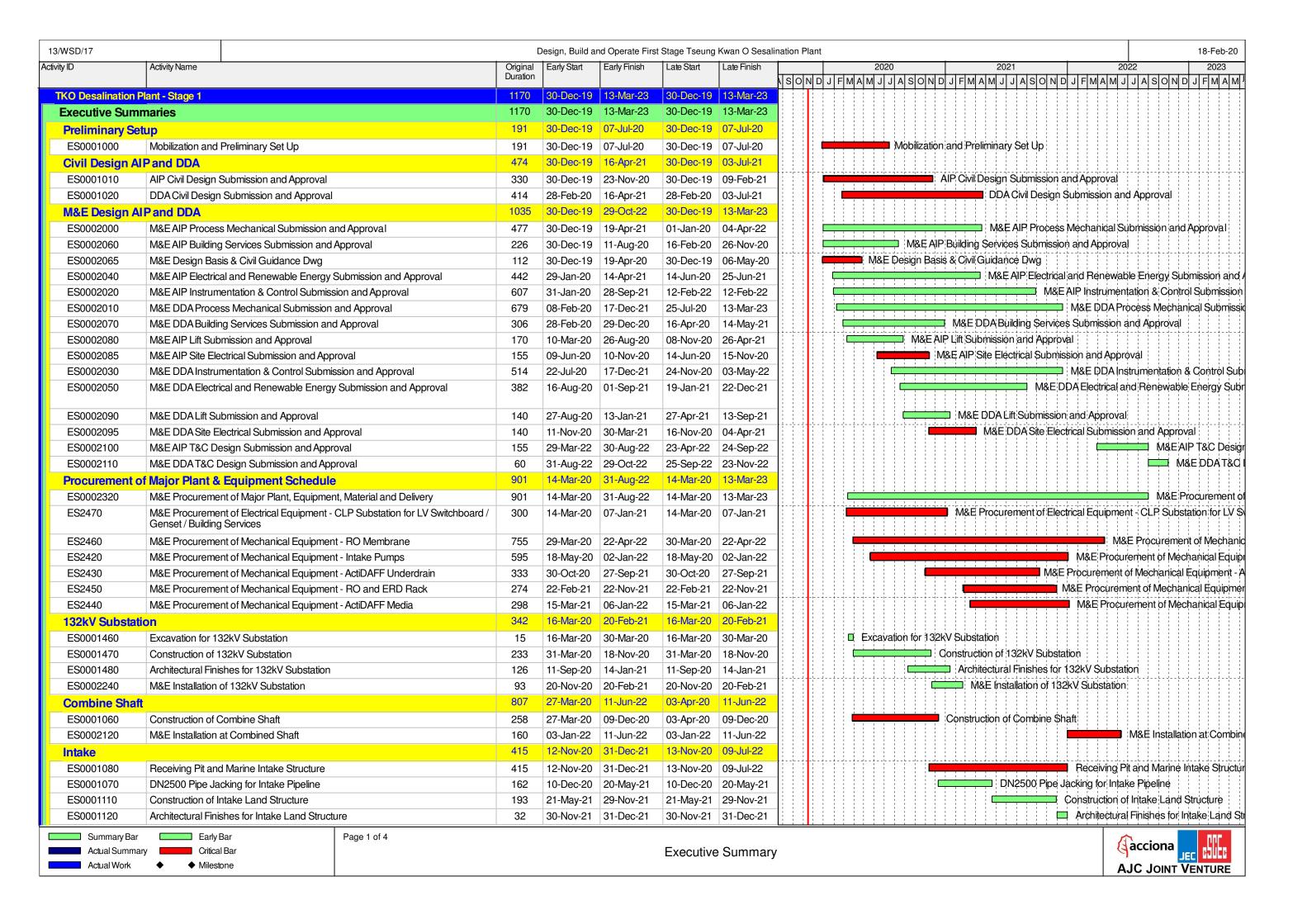
No notification of summons or prosecution was received since commencement of the Contract.

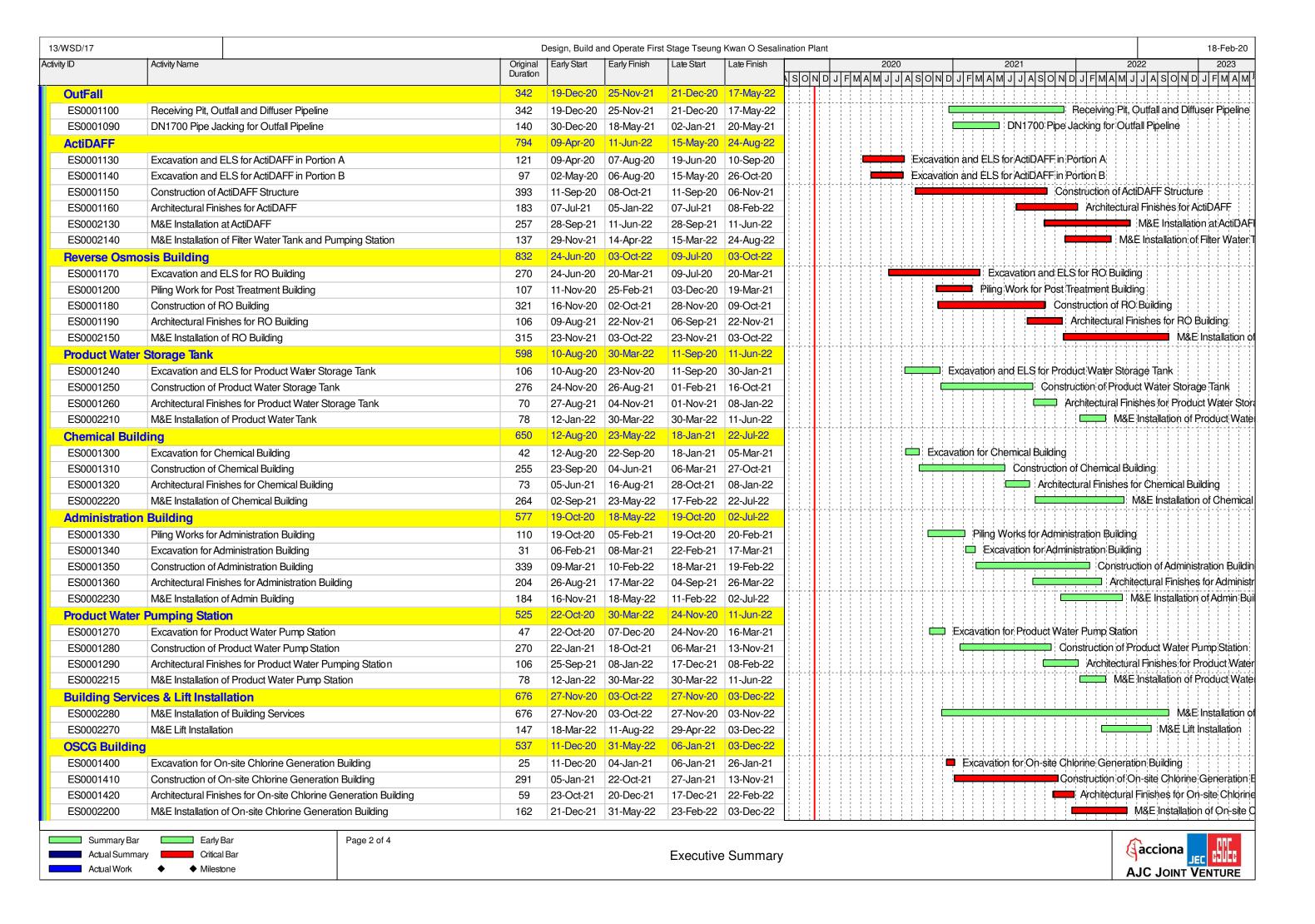
The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.



Appendix A

Master Programme





13/WSD/17 Design, Build and Operate First Stage Tseung Kwan O Sesalination Plant								18-Feb-20					
Activity ID	Activity Name		Original	Early Start	Early Finish	Late Start	Late Finish			2022 2023			
			Duration					N S O	NDJFMAI	MJJASON	JFMA	MJJASONDJFMAM	J J A S O N D J F M A M ^J
Post Treatmen			554			06-Feb-21			1 1 1 1 1 1 1				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
ES0001210	Excavation and ELS for Post Treatment Build	ding	126	19-Dec-20	23-Apr-21		08-Jun-21					Excavation and ELS for Post	: : : : : : : = : : : : : : : : : : : :
ES0001220	Construction of Post Treatment Building		209	14-Apr-21	08-Nov-21	29-May-21							of Post Treatment Building
ES0001230	Architectural Finishes for Post Treatment Bui	ding	59	11-Oct-21	08-Dec-21	24-Nov-21	24-Jan-22					Architectura	Il Finishes for Post Treatment E
ES0002180	M&E Installation of Post Treatment System		199	09-Dec-21	25-Jun-22	25-Jan-22	09-Aug-22						M&E Installation of Post Tr
Irrigation Tank	& Pump Room		395	07-Jan-21	05-Feb-22	07-Jan-21	22-Apr-22						
ES0001550	Piling for Irrigation Tank and Pump Room		69	07-Jan-21	16-Mar-21	07-Jan-21	16-Mar-21				Pil	ling for Irrigation Tank and Pum	p Room
ES0001560	Excavation for Irrigation Tank and Pump Roc	om	7	21-May-21	27-May-21	31-Jul-21	06-Aug-21					Excavation for Irrigation Tar	k and Pump Room
ES0001570	Construction of Irrigation Tank and Pump Ro	om	179	28-May-21	22-Nov-21	07-Aug-21	12-Feb-22					Construction	of Irrigation Tank and Pump R
ES0001580	Architectural Finishes for Irrigation Tank and	Pump Room	81	17-Nov-21	05-Feb-22	08-Feb-22	22-Apr-22	1				Archite	ctural Finishes for Irrigation Tar
Inspection Ga	llery		494	09-Jan-21	17-May-22	26-Feb-21	28-May-22						
ES0001590	Piling for Inspection Gallery		60	09-Jan-21	09-Mar-21	26-Feb-21	24-Apr-21	1	1		Pili	ng for Inspection Gallery	,,,,,,,,,,,,,
ES0001600	Excavation for Inspection Gallery		121	14-Apr-21	12-Aug-21	26-Apr-21	24-Aug-21	1				Excavation for Inspe	ction Gallery
ES0001610	Construction of Inspection Gallery		299	06-May-21	28-Feb-22	18-May-21	11-Mar-22	1				Cons	truction of Inspection Gallery
ES0001620	Architectural Finishes for Inspection Gallery		99	08-Feb-22	17-May-22	19-Feb-22	28-May-22						Architectural Finishes for Insp
Main Electrica	l and Central Chiller Plant Building		531	11-Jan-21	25-Jun-22	21-Jan-21	09-Aug-22						
ES0001430	Excavation for Main Electrical and Central Cl	niller Plant Building	20	11-Jan-21	30-Jan-21	21-Jan-21	10-Feb-21				□ Exca	ation for Main Electrical and C	entral Chiller Plant Building
ES0001440	Construction of Main Electrical and Central C	•	227	01-Feb-21	15-Sep-21	17-Feb-21	27-Sep-21					Construction of M	ain Electrical and Central Chille
ES0001450	Architectural Finishes for Main Electrical and		99	20-Jul-21	26-Oct-21	30-Jul-21	05-Nov-21					- i i i i i i i i i i i i i	nishes for Main Electrical and C
ES0002260	M&E Installation of HV Cabling and Field Par	nels	92	26-Mar-22	25-Jun-22	09-Aug-22	09-Aug-22						M&E Installation of HV Cal
Sludge Thicke	ner		381	19-Apr-21	04-May-22	22-Jul-21	09-Aug-22						
ES0001680	Excavation and ELS for Sludge Thickener		73	19-Apr-21	30-Jun-21	22-Jul-21	01-Nov-21	1	i - i-i-i-i-i-i-i			Excavation and ELS for	Sludge Thickener
ES0001690	Construction of Sludge Thickener		121	02-Jul-21	30-Oct-21	02-Nov-21	07-Feb-22					Construction of	f Sludge Thickener
ES0001700	Architectural Finishes for Sludge Thickener		44	01-Nov-21	14-Dec-21	08-Feb-22	27-Mar-22					Architectur	al Finishes for Sludge Thickene
ES0002190	M&E Installation of Sludge Thickener		141	15-Dec-21	04-May-22	28-Mar-22	09-Aug-22						M&E Installation of Sludge Thic
Guard House			350	21-May-21	05-May-22	16-Jul-21	13-Mar-23						
ES0001520	Excavation for Guard House near Pier		8	21-May-21	28-May-21	16-Jul-21	23-Jul-21					Excavation for Guard Hou	se near Pier
ES0001530	Construction of Guard House near Pier		147	29-May-21	-	24-Jul-21	15-Dec-21	-					Guard House near Pier
ES0001490	Excavation for Guard House at Main Gate		7		21-Sep-21		17-Nov-21						ard House at Main Gate
ES0001500	Construction of Guard House at Main Gate		149	23-Sep-21	18-Feb-22	18-Nov-21							ruction of Guard House at Mai
ES0001540	Architectural Finishes for Guard House near	Pier	74	23-Oct-21	04-Jan-22		11-Mar-22						iral Finishes for Guard House I
ES0001510	Architectural Finishes for Guard House at Ma		76			19-Apr-22							Architectural Finishes for Guar
CO2 Tank			303	22-Jun-21	20-Apr-22	· ·	03-Dec-22						
ES0001370	Filling to Formation for CO2 Tanks Area		29	22-Jun-21	20-Jul-21	14-Aug-21						Filling to Formation for	CO2 Tanks Area
ES0001380	Construction of CO2 Tanks Area		116	21-Jul-21	13-Nov-21	11-Sep-21		+					of CO2 Tanks Area
ES0001390	Architectural Finishes for CO2 Tanks Area		73		26-Jan-22	10-Jan-22		$\exists \vdots$					tural Finishes for CO2 Tanks A
ES0001300	M&E Installation of CO2 Tank		84		20-Apr-22		03-Dec-22		 				/l&E Installation of CO2 Tank
	reatment Plant		175	28-Oct-21	20-Apr-22	31-Dec-21							
ES0001710	Construction of Waste Water Treatment Plan	**	100		04-Feb-22	31-Dec-21						Constr	uction of Waste Water Treatme
ES0001710 ES0002340	M&E Installation of Waste Water Treatment F		75	-	20-Apr-22	20-Apr-22	· •	-					M&E Installation of Waste Wate
<u> </u>		-iai it		25-Feb-22	20-Apr-22 22-Apr-22	08-May-22							installation of vvaste vvate
	MS E Discol Emerganou Congretor		57		·			 					// // M&E Diesel Emergency Gener
ES0002250	M&E Diesel Emergency Generator		57		· •	08-May-22							Nat breser the realty denen
	and Transformer Installation		242	16-Nov-21	15-Jul-22	18-Feb-22						<u> </u>	
ES0002300	M&E Installation of HV/LV Switchroom and T	ranstormer	242	16-Nov-21	15-Jul-22	18-Feb-22	09-Jan-23						M&E Installation of HV/LV
Cumman, Dar	FortyPor	Page 3 of 4											
Summary Bar Actual Summa	Early Bar Critical Bar	rayes ur4				Evacutive	Summary	.,					(acciona
Actual Work	◆ Milestone					LACCULIVE	, Julillaly	y					A IC JOINT VENTURE
													AJC JOINT VENTURE

vity ID	Activity Name	Original	Design, Build a	Early Finish	Late Start	Late Finish			2020	2021	2022	2023
nty ID	Activity Name	Duration	Lany Start	Lany i inish	Late Start	Laterinish	NSON	J F M A N	JJASO	NDJFMAMJJASONE	J F M A M J J A S O N	D J F M A I
Miscellaneo	us	808	23-Nov-20	08-Feb-23	28-Nov-20	27-Feb-23						
ES0001660	Slope Mitigation and Maintenance Access	684	23-Nov-20	07-Oct-22	28-Nov-20	23-Dec-22					Slo	pe Mitigation
ES0001640	External Process and Non-Process Pipe	655	18-Dec-20	03-Oct-22	31-Dec-20	18-Nov-22			· · · · · · · · · · · · · · · · · · ·			ernal Proces
ES0001650	Road and Drainage	518	04-Jun-21	03-Nov-22	23-Jun-21	29-Nov-22						Road and Dr
ES0002310	M&E Chiller & Irrigation System Installation	298	27-Oct-21	20-Aug-22	06-Nov-21	11-Feb-23					M&E C	hiller & Irriga
ES0001670	Landscaping Works	469	28-Oct-21	08-Feb-23	28-Jan-22	27-Feb-23						Land
ES0002290	M&E PV Panels	215	23-Nov-21	25-Jun-22	23-Dec-21	27-Jul-22					M&E PV Pa	ınels
ES0002380	M&E Installation of Drainage Pit	30	23-Nov-21	22-Dec-21	01-Jun-22	02-Jul-22					M&E Installation of Draina	ge Pit
ES0002390	M&E Installation of Thickened Sludge Holding Tank	42	09-Dec-21	19-Jan-22	27-Oct-22	03-Dec-22					M&E Installation of Thick	ened Sludg
ES0001630	Remaining Architectural Finishes for All Buildings	322	11-Jan-22	28-Nov-22	14-Jun-22	06-Feb-23						Remaining
ES0002370	M&E Installation of Static Mixer Pit	42	27-Jan-22	09-Mar-22	26-May-22	02-Jul-22					M&E Installation of S	tatic Mixer F
ES0002350	M&E Installation of Surge Vessel	70	24-Feb-22	04-May-22	07-Dec-22	09-Jan-23					M&E Installation	of Surge Ve
ES0002360	M&E Installation of Flowmeter Pit	70	24-Feb-22	04-May-22	26-Apr-22	02-Jul-22					M&E Installation	of Flowme
Statutory Sul	omission & Inspection	1148	11-Jan-20	03-Mar-23	08-Feb-20	13-Mar-23						
ES0002330	Statutory Submission & Inspection	1148	11-Jan-20	03-Mar-23	08-Feb-20	13-Mar-23						Stat
Testing and	Commissioning	275	12-Jun-22	13-Mar-23	12-Jun-22	13-Mar-23						
ES0002400	M&E Precomissioning	229	12-Jun-22	26-Jan-23	12-Jun-22	26-Jan-23						M&E F
ES0002410	M&E Commissioning	213	04-Jul-22	01-Feb-23	04-Jul-22	01-Feb-23	1 1 1 1		·			 M&E (
ES0002420	M&E Performance Test	40	02-Feb-23	13-Mar-23	02-Feb-23	13-Mar-23						■ M8

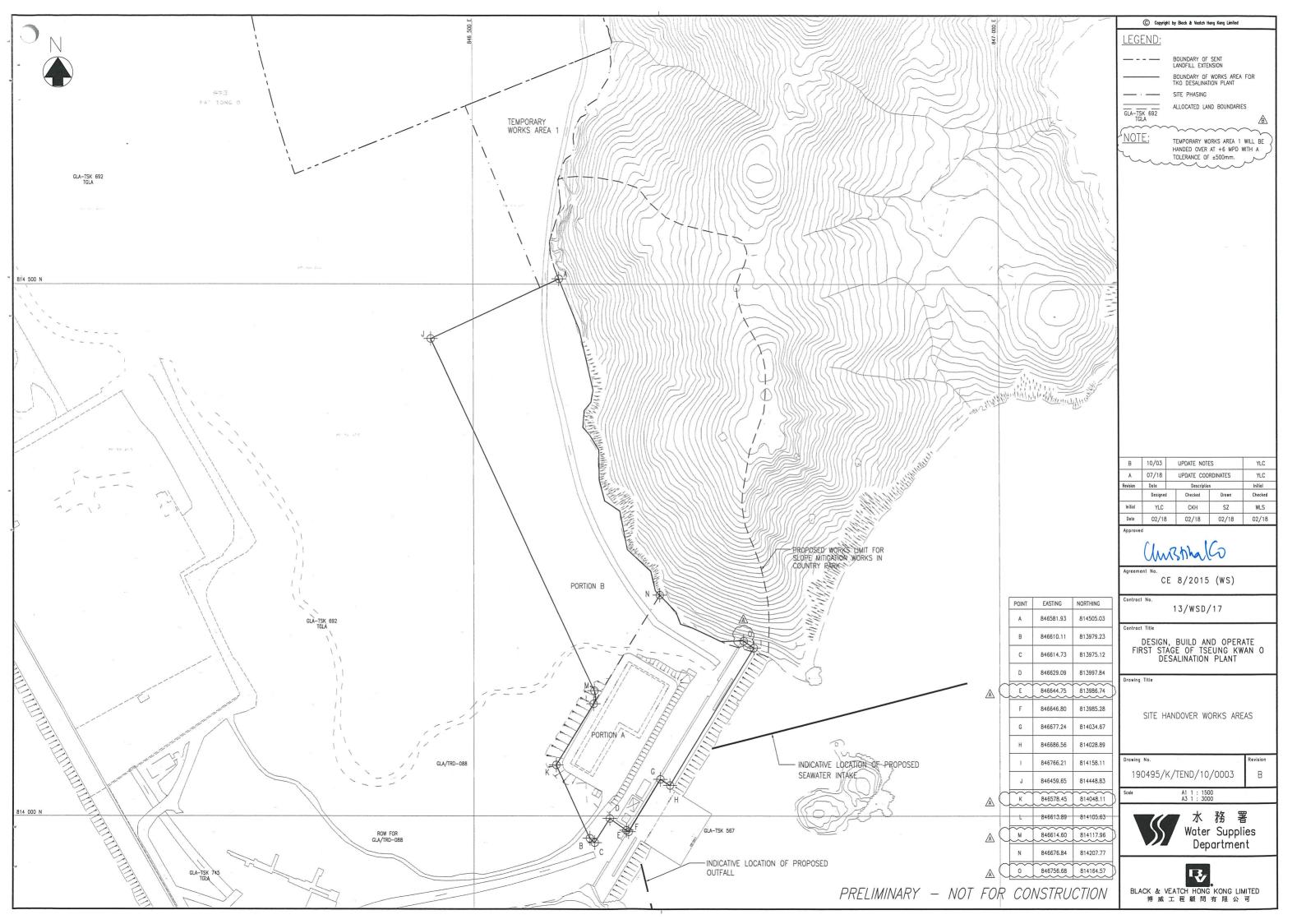






Appendix B

Overview of Desalination Plant in Tseung Kwan O



BUILDINGS IN FIRST STAGE

DOILDI	1100 III TINOT OTNOL		
CODE	NAME OF BUILDING	TOTAL G.F.A. (m²)	SITE COVERAGE (m²)
В	COMBINE SHAFT	759.876	759,876
С	ACTIDAFF	10027,547	5455_346
G	REVERSE OSMOSĮS BUĮLDĮNG AND ELECTRĮCAL BUILDING	4511 <u>.</u> 455	5367,935
н	CO2 TANKS AREA	-	-
J	PRODUCT WATER STORAGE TANK, PUMP STATION AND ELECTRICAL BUILDING	1974.610	2933,980
к	SLUDGE TREATMENT BUILDING, TANK AND PUMP ROOM	2531,044	1228.361
М	ADMINISTRATION BUILDING & ELECTRICAL BUILDING C	2459,713	1114,062
N	MAIN ELECTRICAL AND CENTRAL CHILLER PLANT BUILDING	-	459,893
R1	ELECTROCHLORINATION BUILDING & ELECTRICAL BUILDING A	657.992	825.776
S	132 kV SUBSTATION	-	943.560
Т	IRRIGATION WATER TANK AND PUMP ROOM	-	156.148
R2	CHEMICAL BUILDING	813.056	813,056
٧	VISITOR GALLERY	1330.410	1330.410
X1	GUARD HOUSE AND FS CONTROL ROOM	39.585	39.585
X2	GUARD HOUSE	22.035	22.035
Υ	R+D OUTDOOR	-	-
Z	WASTE WATER TREATMENT PLANT	48.000	48,000
	TOTAL =	25175.323	21498.023

LEGEND / ABBREVIATION

H/L WINDOW HIGH LEVEL WINDOW METAL LOUVRES CAT LADDER

C.L. ACCESSIBLE UNISEX TOILET

PROPOSED FINISH FLOOR LEVEL IN METER ABOVE P.D. STRUCTURAL FLOOR LEVEL IN METER ABOVE P.D. MECHANNICAL VENTILATION & ARTIFICIAL LIGHTING

4.5kg CO² FIRE EXTINGUISHER

HOSE REEL

FIREMAN'S LIFT LIFT FOR THE BARRIER FREE ACCESS

PIPE DUCT

PLOT RATIO & SITE COVERAGE CALCULATION:

TOTAL G.F.A. TOTAL SITE COVERAGE

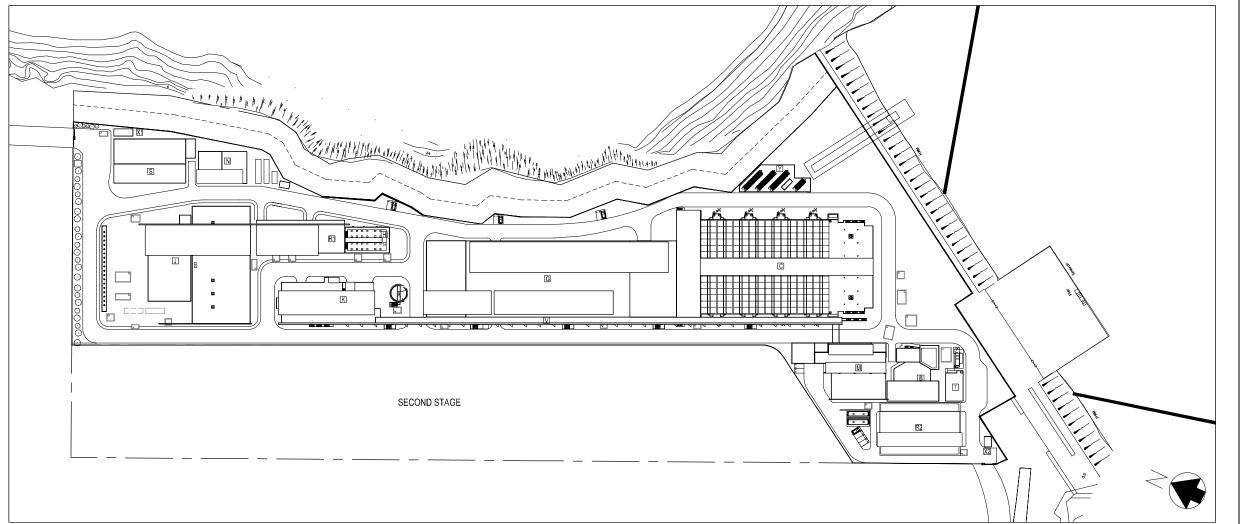
SITE COVERAGE

FIRST STAGE-INDICATIVE LOCATION OF PROPOSED SEAWATER INTAKE 大廟灣 JOSS HOUSE BAY (TAI MIU WAN)

1 : 5000

SITE LOCATION PLAN

FIRST STAGE OF TSEUNG KWAN O DESALINATION PLANT





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Appendix C

Summary of Implementation Status of Environmental Mitigation



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



	Recommended Environmental Protection Measures/	Objectives of the recommended measures &	Implementation Agent	Imple Stage		ation	Implementation	Relevant Legislation & Guidelines
Reference	Mitigation Measures	main concerns to address	implementation Agent	D	С	0	status	
S4.8.1	Hoarding of not less than 2.4m high from ground level will be provided along the length of the Project Site boundary.	Land site/ During construction	Contractor(s)	1	√		N/A	
S4.8.1	Haul roads will be kept clear of dusty materials and will be sprayed with water so as to maintain the entire road surface wet at all times.	Land site/ During construction	Contractor(s)		✓		Implemented	
S4.8.1	Temporary stockpiles of dusty materials will be either covered entirely by impervious sheets or sprayed with water to maintain the entire surface wet all the time.	Land site/ During construction	Contractor(s)		√		Implemented	
S4.8.1	Stockpiles of more than 20 bags of cement, dry pulverised fuel ash and dusty construction materials will be covered entirely by impervious sheeting sheltered on top and 3-sides.	Land site/ During construction	Contractor(s)		✓		Implemented	
S4.8.1	All exposed areas will be kept wet always to minimise dust emission.	Land site/ During construction	Contractor(s)		1		Implemented	
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
S4.8.1	The engine of the construction equipment during idling will be switched off.	Land site/ During construction	Contractor(s)		✓		Implemented	



	Recommended Environmental Protection Measures/	Objectives of the recommended measures & l main concerns to address	Implementation Agent	Implementation Stage			Implementation	Relevant Legislation & Guidelines
Reference	Mitigation Measures		implementation Agent	D	С	0	status	
S4.8.1	Concrete batching plant will be required on site. control measures recommended in the Guidance Note on a Best Practicable Means for Cement Works (Concrete Batching Plant) (BPM 3/2 (93)) will be implemented. The control measures recommended in the Guidance Note on a Best Practicable Means for Cement Works (Concrete Batching Plant) (BPM 3/2 (93)) will be implemented.	Land site/ During construction	Contractor(s)		✓		Implemented	
S4.8.1	Regular maintenance of construction equipment deployed on-site will be conducted to prevent black smoke emission.	Land site/ During construction	Contractor(s)		√		Implemented	
S4.10	To ensure proper implementation of the recommended dust mitigation measures and good construction site practices during the construction phase, environmental site audits on weekly basis is recommended throughout the construction period.	Land site/ During construction	Contractor(s)/ Environmental Team (ET) & Independent Environmental Checker (IEC)		✓		Implemented	



EIA Poforon	Recommended Environmental Protection ace Measures / Mitigation Measures	Objectives of the recommended measures &	Implementation Agent	Impler Stage			Implementation status	Relevant Legislation & Guidelines
	ice Measures/ Mitigation Measures	main concerns to address	Agent	D	С	0		& Guidennes
Noise		_						
S5.7	Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction phase.	All area/ During construction	Contractor(s)		√		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Silencers or mufflers on construction equipment will be utilised and will be properly maintained during the construction phase.	Noise control/ During construction	Contractor(s)		✓		N/A	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Mobile plant, if any, will be sited as far away from NSRs as possible.	Noise control/ During construction	Contractor(s)		√		N/A	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Machines and plant (such as trucks) that may be in intermittent use will be shut down between work periods or will be throttled down to a minimum.	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Plants known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.	Noise control/ During construction	Contractor(s)		√		N/A	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from on-site construction activities.	Noise control/ During construction	Contractor(s)		√		N/A	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Use of Quite Powered Mechanical Equipment (QPME).	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Movable noise barriers of 3m in height with skid footing should be used and located within a few metres of stationary plant and mobile plant such that the line of sight to the NSR is blocked by the barriers. The length of the barrier should be at least five times greater than its height. The noise barrier material should have a superficial surface density of at least 7 kg m ⁻² and have	Noise control/ During construction	Contractor(s)		√		N/A	A Practical Guide for the Reduction of Noise from Construction Works,



EIA Referen	Recommended Environmental Protection ace Measures / Mitigation Measures	Objectives of the recommended measures &	Implementation Agent	Implei Stage			Implementation status	Relevant Legislation & Guidelines
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S5.7	no openings or gaps. The noise insulating sheet should be deployed such that there would be no opening or gaps on the joints.	Noise control/ During construction	Contractor(s)		✓		N/A	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Construction activities (e.g. excavation/shoring, reinstatement (asphalt), and pipe jacking) will be planned and carried out in sequence, such that items of PME proposed for these activities will not be operated simultaneously.	Noise control/ During construction	Contractor(s)	*	✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works
S5.7	PMEs will not be used at the works areas near educational institutions with residual impact (ie the "influence area" within a radius of 40m) during school hours in order to reduce impact to the educational institutions.	Noise control / During construction	Contractor(s)		√		N/A	A Practical Guide for the Reduction of Noise from Construction Works
S5.7	Noise enclosures or acoustic sheds would be used to cover stationary PME such as generators. Portable/Movable noise enclosure made of material with superficial surface density of at least 7 kg m ⁻² may be used for screening the noise from operation of the saw/groover, concrete.	Noise control/ Pre- construction/ During construction	Contractor(s)	✓	✓		N/A	
S5.9	Sawcutting pavement, breaking up of pavement, excavation /shoring, pipe laying, backfilling, reinstatement (concrete) and pipe jacking shall be scheduled outside the examination period.	Noise control/ Pre- construction/ During construction	Contractor(s)	✓	•		N/A	



EIA	Recommended Environmental Protection	Objectives of the recommended measures &	Implementation	Imple Stage	menta	tion	status	Relevant Legislation & Guidelines
Keleren	ce Measures/ Mitigation Measures	main concerns to address	Agent	D	C	0		& Guidelines
S5.9	In view the duration of noise exceedance at Creative Secondary School, PLK Laws Foundation College, TKO Kei Tak Primary School and School of Continuing and Professional Studies-CUHK is limited to 8 weeks, the construction work in the influence areas near the four schools shall be scheduled during long school holidays (eg summer holiday, Easter holiday or Christmas holiday, etc) as far as practicable. Scheduling the construction work for the four schools.	Noise control/ Pre- construction/ During construction	Contractor(s)	•	•		N/A	
S5.10	A noise monitoring programme shall be implemented for the construction phase.	Designated monitoring stations as defined in EM&A Manual/During construction phase	Environmental Team (ET)		✓		N/A	
S5.10	The effectiveness of on-site control measures could also be evaluated through the regular site audits.	All facilities/ During construction	Contractor(s)/ Environmental Team (ET) & Independent Environmental Checker (IEC)		✓		Implemented	-



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommender measures & main concerns to	Implementation Agent	Implen Stage	nentat	ion	Implementation status	Relevant Legislation & Guidelines
	Measures/ Mitigation Measures	address	Agent	D	С	0		duidennes
Water Quality								
S6.9	Dredged marine sediment will be disposed of in a gazetted marine disposal area in accordance with marine dumping permit conditions of the Dumping at Sea Ordinance (DASO).	Marine Dredging/ During construction	Contractor(s)		•		N/A	Dumping at Sea Ordinance (DASO)
S6.9	Disposal vessels will be fitted with tight bottom seals in order to prevent leakage of material during transport.	Marine Dredging/ During construction	Contractor(s)		√		N/A	-
S6.9	Barges will be filled to a level, which ensures that material does not spill over during transport to the disposal site and that adequate freeboard is maintained to ensure that the decks are not washed by wave action.	Marine Dredging/ During construction	Contractor(s)		√		N/A	-
S6.9	After dredging, any excess materials will be cleaned from decks and exposed fittings before the vessel is moved from the dredging area.	Marine Dredging/ During construction	Contractor(s)		✓		N/A	-
S6.9	All vessels should be well maintained and inspected before use to limit any potential discharges to the marine environment.	Marine Dredging/ During construction	Contractor(s)		✓		N/A	-
S6.9	All vessels must have a clean ballast system.	Marine Dredging/ During construction	Contractor(s)		√		N/A	-
S6.9	No discharge of sewage/grey wastewater should be allowed. Waste water from potentially contaminated area on working vessels should be minimized and collected. These kinds of wastewater should be brought back to port and discharged at appropriate collection and treatment system.	Marine Dredging/ During construction	Contractor(s)		✓		N/A	-
S6.9	No soil waste is allowed to be disposed overboard.	Marine Dredging/ During construction	Contractor(s)		✓		N/A	-



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to	Implementation Agent	Stage	mentat		Implementation status	Relevant Legislation & Guidelines
	Measures/ Mitigation Measures	address	Agent	D	C	0		duidennes
S6.9	Silt removal facilities such as silt traps or sedimentation facilities will be provided to remove silt particles from runoff to meet the requirements of the TM standard under the WPCO. The design of silt removal facilities will be based on the guidelines provided in ProPECC PN 1/94. All drainage facilities and erosion and sediment control structures will be inspected on a regular basis and maintained to confirm proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit will be removed regularly.	Land site & drainage/ During construction	Contractor(s)		•		Implemented	ProPECC PN 1/94 TM Standard under the WPCO
S6.9	Earthworks to form the final surfaces will be followed up with surface protection and drainage works to prevent erosion caused by rainstorms.	Land site & drainage/ During construction	Contractor(s)		√		Implemented	-
S6.9	Appropriate surface drainage will be designed and provided where necessary.	Land site & drainage/ During construction	Contractor(s)		√		Implemented	-
S6.9	The precautions to be taken at any time of year when rainstorms are likely together with the actions to be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94.	Land site & drainage/ During construction	Contractor(s)	✓	V		Implemented	ProPECC PN 1/94
S6.9	Oil interceptors will be provided in the drainage system where necessary and regularly emptied to prevent the release of oil and grease into the storm water drainage system after accidental spillages.	Land site & drainage/ During construction	Contractor(s)		*		Implemented, rectified after reminder	-



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to	Implementation Agent	Imple Stage	mentat	ion	Implementation status	Relevant Legislation & Guidelines
	measures/ mitigation measures	address	Agent	D	С	0		Guidelines
S6.9	Temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge, if any, will be adequately designed for the controlled release of storm flows.	Land site & drainage/ During construction	Contractor(s)		~		N/A	-
S6.9	The temporary diverted drainage, if any, will be reinstated to the original condition when the construction work has finished or when the temporary diversion is no longer required.	Land site & drainage/ During construction	Contractor(s)		√		N/A	-
S6.9	Appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers over the construction site to prevent direct disposal of sewage into the water environment.	Land site & drainage/ During construction	Contractor(s)		*		Implemented	-
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)		1	✓	N/A	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)		1	*	N/A	Technical Memorandum for Effluents Discharged into Drainage and Sewerage Systems Inland and Coastal Waters



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	d Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
	Measures/ Midgadon Measures		Agent	D	C	0		duidennes
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	-
S6.12	Regular site inspections will be carried out in order to confirm that regulatory requirements are being met and that contractors are implementing the standard site practice and mitigation measures as proposed to reduce potential impacts to water quality.	During construction	Contractor(s)/ Environmental Team (ET) & Independent Environmental Checker (IEC)		✓		Implemented	-



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



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



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



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation	Implei Stage	nentat	ion	Implementation Status	Relevant Legislation & Guidelines
	Mitigation Measures	main concerns to address	Agent	D	С	0		Guidelines
	construction wastes on-site should be covered with tarpaulin or similar fabric.	Construction, particularly dry season					rectified after observation	(Construction Dust) Regulation (Cap 311R)
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	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
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	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Storage areas for chemical waste shall be enclosed on at least 3 sides.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	1	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
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	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Storage areas for chemical waste shall have adequate ventilation.	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



EIA Reference	Recommended Environmental Protection Measures/	Objectives of the recommended measures &	Implementation	Implen Stage	nentati	on	Implementation Status	Relevant Legislation &
	Mitigation Measures	main concerns to address	Agent	D	С	0		Guidelines
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	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
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	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
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	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
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 minimise 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 aluminium can, waste paper, 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	-
S8.5	To avoid any odour and litter impact, accurate number of portable toilets will be provided for workers on-site.	All area/ During construction	Contractor(s)		✓		Implemented	-
S8.5	The burning of refuse on construction sites is prohibited by law.	All area/ During construction	Contractor(s)		✓		Implemented	Air Pollution Control Ordinance (Cap 311)
S8.7	To facilitate monitoring and control over the contractors' performance on waste management, a waste inspection and audit programme will be	All facilities/ During construction	ET/IEC		√		Implemented	-



FIA Reterence	Recommended Environmental Protection Measures/ Mitigation Measures	recommended measures X	Implementation	Implen Stage	nentatio		Implementation Status	Relevant Legislation & Guidelines
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	implemented throughout the construction phase.							



	Recommended Environmental Protection Measures/	Objectives of the recommended measures &	Implementation	Impler Stage	nentat	ion	Implementation Status	Relevant Legislation &
	Mitigation Measures	main concerns to address	Agent	D	С	0		Guidelines
	Ecology							
S9.7	For slope mitigation works within the Clear Water Bay Country Park, to avoid tree felling and damages to trees, the exact locations of the flexible barrier foundation plates, soil nails and rock dowels can be adjusted during detailed design, and a setback distance from existing trees is recommended to be maintained as far as practical. A detailed specification describing the exact locations of the flexible barrier foundation plates, soil nails and rock dowels will be prepared to illustrate how the setback distance from existing trees would be implemented for tree avoidance.	Slope mitigation works area/ During detailed design/ During construction	Contractor(s)	*	•		Implemented	-
S9.7	Pruning of tree canopies along the alignment of the flexible barriers shall be limited to a minimum.	Slope mitigation works area/ During construction	Contractor(s)		1		Implemented	
S9.7	The alignment of flexible barriers shall be optimized to preserve all species of conservation interest and minimize the impact to the existing vegetation as far as practicable. All individuals of <i>Marsdenia lachnostoma</i> within the slope mitigation areas shall be retained <i>insitu</i> , by positioning the alignment of flexible barrier at a minimum 1.5m in a radius away from these individuals.	Slope mitigation works area/ During detailed design/ During construction	Contractor(s)	✓	✓		N/A	-
S9.7 and 9.10	At the detailed design stage prior to the commencement of the slope mitigation works, a vegetation survey shall be carried out at the slope mitigation areas within the Clear Water Bay Country Park to assess the condition and identify the location of each individual of <i>Marsdenia lachnostoma</i> and other flora species of conservation interest that may be directly affected by the construction works.	Slope mitigation works area/ During detailed design/ During construction	Contractor(s)	√	✓		N/A	-
S9.7	Temporary fencing will be installed to fence off the concerned species either in groups of individually within the works area and in the close proximity to prevent from being damaged and disturbed during construction. A sign identifying the site shall be attached to the fence and flagging tape shall be attached to the individuals to visualize their locations.	Slope mitigation works area/ During construction	Contractor(s)		✓		N/A	-



	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation Agent	Stage	nentati			Relevant Legislation & Guidelines
	Mitigation Measures	main concerns to address	Agent	D	C	0		duidennes
S9.7 and S9.10	A specification for fencing and demarcating individuals of <i>Marsdenai lachnostoma</i> (or other flora species of conservation interest, if found) adjacent to the proposed alignment of the flexible barriers will be prepared to protect the species.	Slope mitigation works area/ During construction	Contractor(s)		✓		N/A	-
S9.7	Induction training shall also be provided to all site personnel in order to brief them on this flora of conservation interest including the locations and their importance.	Slope mitigation works area/ During construction	Contractor(s)		✓		N/A	-
S9.7	The resident site supervisory staff will closely monitor the conditions of concerned individuals during construction of flexible barriers in the close proximity.	Slope mitigation works area/ During construction	Contractor(s)		√		N/A	-
S9.7	Erect fences along the boundary of the works area before the commencement of works to prevent vehicle movements and encroachment of personnel onto adjacent areas.	All area/ During construction	Contractor(s)		✓		Implemented	-
S9.7	Regularly check the work site boundaries to ensure that they are not breached and that damage does not occur to surrounding areas.	All area/ During construction	Contractor(s)/ Environmental Team (ET)		✓		Implemented	-
S9.7	Avoid any damage and disturbance, particularly those caused by filling and illegal dumping, to the surrounding habitats through proper management of waste disposal.	All area/ During construction	Contractor(s)		✓		Implemented	-
S9.7	Reinstate temporarily affected areas, particularly the habitats of plantation and shrubland-grassland immediately after completion of construction works, through on-site tree/shrub planting. The tree/shrub species will be chosen with reference to those in the surrounding area.	All area/ During construction	Contractor(s)		✓		N/A	-
S9.7	Affected habitats within the Clear Water Bay Country Bay shall be reinstated by hydro-seeding and planting of climbers and native shrub seedlings where practical upon completion of the slope mitigation works.	All area/ During construction	Contractor(s)		√		N/A	-



EIA	Recommended Environmental Protection Measures/ Mitigation	Objectives of the recommended	Implementation			ation	Implementation Status	Reievant
Reference		measures & main concerns to address	Agent	D	С	0		Legislation & Guidelines
	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	-
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 (ie 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 &	Any slope mitigation works necessary to address natural terrain	All area/ Detailed	WSD/	✓	✓	✓	N/A	



EIA	Recommended Environmental Protection Measures/ Mitigation	Objectives of the recommended	Implementation				Implementation Status	Refevant
Reference	, ,		Agent	D	С	0		Legislation & Guidelines
11.11	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)	design/ During construction/ During operation	Contractor(s)					
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 installation. (MM7)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	~	<	*	N/A	
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	-



EIA Reference	Recommended Environmental Protection	Objectives of the recommended measures &	Implementation	Imple Stage	menta	ation	Implementation Status	Relevant Legislation &
LIA Reference	Measures/ Mitigation Measures	main concerns to address	Agent	D	С	0		Guidelines
	Landfill Gas Hazard							
S12.7	During all works, safety procedures should be implemented to minimise 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/ During 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 metre.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	*	•	•	N/A	
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/ During 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/ During 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	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	√	Implemented	



EIA Reference	Recommended Environmental Protection	Objectives of the recommended measures &	Implementation	Imple Stage	menta	ation	Implementation Status	Relevant Legislation &
LIA Reference	Measures/ Mitigation Measures	main concerns to address	Agent	D	С	0		
	physical contact with it.							
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/ During operation	Contractor(s)	•	•	•	N/A	
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/ During operation	Contractor(s)	1	√	√	N/A	
S12.7	Proceed drilling with adequate care and precautions against the potential hazards which may be encountered.	All area/ Detailed design/ During construction/ During 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/ During operation	Contractor(s)	*	√	✓	Implemented	



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation	Implementation Stage			Implementation Status	Relevant Legislation &
			Agent	D	С	0		Guidelines
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/ During operation	Contractor(s)	~	✓	✓	N/A	
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/ During operation	Contractor(s)	✓	•	✓	N/A	
S12.7	The manholes and utility pits within the Project Site and along the fresh water mains. Each manhole/ utility pit should be monitored with two measurements (at mid depth and base). Each measurement should be monitored for a minimum of 10 minutes. A steady reading and peak reading should be recorded at each manhole/ utility pit and for each measurement. The need for venting the manhole/ utility pit and further monitoring will be reviewed after the initial monitoring.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	√	*	✓	N/A	
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	All area/ Detailed design/ During construction/ During operation	Contractor(s)			•	Implemented	



EIA Reference	Recommended Environmental Protection Measures / Mitigation Measures	recommended measures &	Implementation	Imple Stage D	 	Relevant Legislation & Guidelines
	being minimized on-site.					



Appendix D

Impact Monitoring Schedule of the Reporting Month (BLANK)



(BLANK)



Appendix E

Event/Action Plan for Noise Exceedance



Event and Action Plan for Construction Noise Monitoring

Action Level	Action											
	ET	ET		IEC				Contractor				
	1.	Carry out investigation to identify the source and cause of the complaint/ exceedance(s)	1. 2.	Review the analyzed results submitted by the ET Review the proposed remedial	1.	Confirm receipt of Notification of Exceedance in writing Require Contractor to propose	1.	Submit noise mitigation proposal if required, to the IEC and ER Implement noise mitigation				
	2.	Notify IEC, ER, and Contractor and report the results of investigation	2.	measures by the Contractor and advise the ER accordingly	2.	remedial measures for the analysed noise problem	2.	proposals.				
		to the Contractor, ER and the IEC	3.	Supervise the implementation of	3.	Ensure remedial measures are						
	3.	Discuss with the Contractor and IEC for remedial measures required		remedial measures		properly implemented						
	4.	If the complaint is related to the Project, conduct additional monitoring for checking mitigation effectiveness and report the findings and results to the IEC, ER and the Contractor										



Appendix F

Noise Monitoring Equipment Calibration Certificate (BLANK)



(BLANK)



Appendix G

Event/Action Plan for Water Quality Exceedance



Event		Act	tion	
	ET	IEC	SO	Contractor
Action level being exceeded by one sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; Repeat measurement on next day of exceedance. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the SO accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the SO and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and SO within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)
Action level being exceeded by more than one consecutive sampling days	Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; Repeat measurement on next working day of exceedance. (The above actions should be taken within 1 working day after Action Level being exceeded by two consecutive sampling days)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the SO accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after Action Level being exceeded by two consecutive sampling days)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented. Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after Action Level being exceeded by two consecutive sampling days)	Inform the SO and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and SO within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after Action Level being exceeded by two consecutive sampling days)



Event	Action							
	ET	IEC	SO	Contractor				
Limit level being exceeded by one sampling day	Inform the SO and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with Contractor, IEC and SO and propose mitigation measures to IEC and SO within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the SO accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC, ET and Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented. Assess the effectiveness of the implemented measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the SO and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET, IEC and SO and propose mitigation measures to IEC and SO within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)				



Event		Act	tion	
	ET	IEC	SO	Contractor
Limit level being exceeded by more than one consecutive sampling days	Identify source(s) of impact; Inform IEC, Contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods. Discuss mitigation measures with IEC, SO and Contractor. Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days. (The above actions should be taken within 1 working day after Limit Level being exceeded by two consecutive sampling days)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the SO accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after Limit Level being exceeded by two consecutive sampling days)	Discuss with IEC, ET and Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented. Assess the effectiveness of the implemented measures. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit level. (The above actions should be taken within 1 working day after Limit Level being exceeded by two consecutive sampling days)	Inform the SO and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET, IEC and SO and propose mitigation measures to IEC and SO within 3 working days; Implement the agreed mitigation measures; As directed by the SOR, to slow down or to stop all or part of the marine work or construction activities. (The above actions should be taken within 1 working day after Limit Level being exceeded by two consecutive sampling days)



Appendix H

Waste Flow Table

Contract No. 13/WSD/17

Appendix H - Monthly Summary Waste Flow Table

Name of Department: WSD Contract No.: 13/WSD/17

Monthly Summary Waste Flow Table for 2020 (year)

		Actual Quan	tities of Inert C&I) Materials Genera	ted Monthly			Actual Quantities	of C&D Wastes (Generated Monthly	
Month	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	0.000
Feb	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.420
Apr	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.400
May	0.000	0.000	0.000	0.000	0.000	0.000	5.900	0.000	0.000	0.000	12.570
Jun	1081.950	0.000	0.000	0.000	1081.950	0.000	0.000	0.000	0.000	0.000	34.160
Sub-total	1081.950	0.000	0.000	0.000	1081.950	0.000	5.900	0.000	0.000	0.000	49.550
Jul	724.360	0.000	0.000	0.000	724.360	0.000	0.000	0.000	0.000	0.000	33.760
Aug	161.080	0.000	0.000	0.000	161.080	0.000	0.000	0.000	0.000	0.000	42.070
Sep	0.000	0.000	0.000	0.000	0.000	0.000	22.766	0.000	0.010	0.000	83.150
Oct	0.000	0.000	0.000	0.000	0.000	0.000	7.050	0.040	0.020	0.000	39.210
Nov											
Dec											
Total	1967.390	0.000	0.000	0.000	1967.390	0.000	35.716	0.040	0.030	0.000	247.740

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



Unit C, 11/F., Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon T: 2333-6823 | F: 2333-1316 | E: genera@acuityhk.com | www.acuityhk.com

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

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspect	ion Date: _	Inspected by: ET: Ser han	so:	60x.	WSD:	1//4
Inspect	ion Time:_	2:30 pm Contractor: Kin ((on	IEC:			
Weath						
Condi	tion	Sunny Fine Overcast Drizzle Rain	Storm	Ha	zy	
Tempe	erature	C Humidity High Moderate	Low			
Wind		Calm Light Breeze 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?			ш	
0.02		Is ET Leader's log-book kept readily available for inspections?				
					Ш	
1.00		Construction Dust				
1.01	\$4.8.1	Are dusty materials, such as excavated materials, building debris and construction		\checkmark		
		materials, and exposed earth surface properly covered to prevent dust emission?			5	
1.02	S4.8.1	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to			1380315366	
		dusty construction works for dust suppression?				
1.03	S4.8.1	Are fumes or smoke emitting plants or construction activities shielded by a screen?				
1.04	S4.8.1	Are wheel-washing facilities with high-pressure water jets provided at all site exits?				
				V		
1.05	S4.8.1	Is wheel-washing provided to all vehicles leaving the site?		V	П	
		,				
1.06	S4.8.1	Are road section near the site exit free from dusty material?		V		
1.07	S4.8.1	Are all main haul roads inside the site paved or sprayed with water to minimize dust				
		emission during vehicle movement?				
1.08	S4.8.1	Are water spraying provided immediately prior to any loading or transfer of dusty				
	900 BBB/GBB 90000	materials?		V		
1.09	S4.8.1	Are covers provided to all dump trucks carrying dusty materials when entering and			П	
	8	leaving the site?		V	Ш	
1.10	S4.8.1	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of		5/		
		boulders, poles, pillars sprayed with water to maintain the entire surface wet?			Ш	
1.11	S4.8.1	Is exposed earth properly treated within six months after the last construction activity		5/		
		on site?			Щ	
1.12	S4.8.1	Does the operation of plants on site free form dark smoke emission?				



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Item No.	EIA ref.		N/A	Yes	No	Photo/Remarks
1.13	S4.8.1	Are vehicles travelling at speed not exceeding 15km/hr within the site?				
1.14	S4.8.1	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?				
	S4.8.1	Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?		V		
1.16	S4.8.1	Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?		V		
1.17	S4.8.1	Is open burning prohibited?		V		
2.00		Construction Noise (Airborne)				
2.01	S5.7	Are quiet plants adopted on site?		~		
2.02	S5.7	Are the PMEs operating on site well-maintained to minimize the generation of			<u> </u>	
		excessive niose?		V		
2.03	S5.7	Are plants throttled down or turned off when not in use?		1		
2.04	S5.7	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?		V		
2.05	S5.7	Are moveable barriers provided to screen NSRs from plant or noisy operations?		V		
	S5.7	Are silencers, mufflers and enclosures provided to plants?		V		
2.07	S5.7	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?		V		
2.08	S5.7	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?		/		
2.09		Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?		V		
2.10	S5.7	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?		V		
2.11	S5.7	Are valid noise emission label(s) affixed to all air compressors operating on site?		V		
2.12	S5.7	Are all construction noise permit(s) applied for percussive piling work?		V	- "	
2.13		Are construction noise permit(s) applied for general construction works during restricted hours?		V		
2.14	S5.7	Are valid construction noise permit(s) displayed at all vehicular exits?		V		
3.00		Water Quality				
3.01	S6.9	Is effluent discharge license obtained for wastewater discharge from site?		V		
3.02	S6.9	Is effluent discharged according to the effluent discharge license?		V		
3.03	S6.9	Is wastewater discharge from site properly treated prior to discharge?		V		



No. 3.04		j				Photo/Remarks
ა.U4	06.0					
	\$6.9	Are perimeter channels provided to intercept storm runoff from outside the site?		V		
3.05	S6.9	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to				
		remove sand/silt particles from runoff?				
3.06	S6.9	Is surface runoff diverted to sedimentation facilities?		V		
3.07	S6.9	Is the drainage system properly maintained?		V		
3.08	S6.9	Are construction works carefully programmed to minimize soil excavation works			П	
		during rainy seasons?			Щ	28:
3.09	S6.9	Are exposed soil surface protected by paving as soon as possible to reduce the		. /		
		potential of soil erosion?		V	Ш	
3.10	S6.9	Are temporary access roads protected by crushed gravel?		V		
3.11	S6.9	Are exposed slope surface properly protected?				И
				V	Ш	-
3.12	S6.9	Is trench excavation avoided in the wet season as far as practicable, or if necessary,			П	
		backfilled in short sections after excavation?	3.1	V		
3.13	S6.9	Are open stockpiles of construction materials on site covered by tarpaulin or similar		, ,	П	
		fabric during construction?				
3.14	S6.9	Is runoff from wheel-washing facilities avoided?			П	
3.15	06.0	To all lades are will assess and the				
5.15	50.9	Is oil leakage or spillage prevented?		V		
3.16	S6.9	Are there any measures to prevent the release of oil and grease into the storm		6 /		
		drainage system?	Ш			
3.17	S6.9	Are the oil interceptors/ grease traps properly maintained?		V		
3.18	S6.9	Are debris and rubbish generated on site collected, handled and disposed of properly				
	66 88 61	to avoid them entering the streams?		V		
3.19	S6.9	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas,			$\overline{}$	
		within bunds of capacity equal to 110% of the storage capacity of the largest tank?				
3.20	S6.9	Are tanks, containers, storage area bunded and the locations locked as far as possible				
		from the sensitive watercourse and stormwater drains?				
3.21	S6.9	Are sufficient chemical toilets provided on site to handle sewage from construction		$\overline{}$		
		work force?		V		
.22	S6.9	Are sewage disposal and toilet maintenance of the portable chemical toilets provided		. 7		
		by the licensed contractors?				
3.23	S6.9	Is concrete washing water properly collected and treated prior to discharge?		V		
3.24	S6.9	Is suitable type of silt curtains deployed during dredging to reduce the elevation of			-	
		suspended solids to nearby sensitive receivers?		©		
	S6.9	Is closed grab dredger used to reduce the potential leakage of sediments?			$\overline{}$	



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Item	EIA ref.	ract no. 13/WSD/17 Design, Build and Operate First Stage of Ts	N/A	Yes	No	Photo/Remarks
No.						
3.26	S6.9	Is closed grab dredger of 3 to 6 m ³ used for dredging at seawater intake?				
5.20	30.9	is closed grab diedger of 3 to 6 m. used for diedging at seawater intake:	V			
3.27	S6.9	Is specific work staff assigned the responsibility for monitoring the number of grab	1			**************************************
		dredged per hour? Is number of cycle limited to 20-21 grab per hour for 3m³ closed				
		grab, 10-11 grab per hour for 6m³ closed grab?				
3.28	S6.9	Is the grab operated in slow and controlled manner such that the impact to seabed by	.7	$\overline{}$	$\overline{}$	
		the grab when being lowered could be minimized? Is the operator ensured the grab be	V	Ш		
		properly closed before lifting the grab?				
3.29	S6.9	Is the maximum allowed dredging rate at the seawater intake limited to 750 m ³ /day				
		while the maximum allowed dredging rate at the submarine outfall is 3,500 m ³ /day?	1	Ш		
3.30	S6.9	Is dredged marine sediment disposed of in a gazetted marine disposal area in				
		accordance with marine dumping permit conditions of the Dumping at Sea Ordinance	V			
		(DASO)?				
3.31	S6.9	Are disposal vessels fitted with tight bottom seals in order to prevent leakage of				
		material during transport?	V			
3.32	S6 9	Are barges filled to a level which ensures that material does not spill over during				
0.02	50.5	transport to the disposal site and that adequate freeboard is maintained to ensure that	V			
		the decks are not washed by wave action?				
3.33	\$6.9	Are excess materials cleaned from decks and exposed fittings before the vessel is				190-100
	50.5	moved from the dredging area after dredging?				
3.34	\$6.0	Are the contractor(s) confirmed that the works cause no visible foam, oil, grease,		<u> </u>		
3.34	30.9	litter or other objectionable matter to be present in the water within and adjacent				
		to the dredging site?				
3.35	86.0	When the dredged material has been unloaded at the disposal areas, is any material				
3.33	30.9	accumulated on the deck or other exposed parts of the vessel removed and placed in				
		the hold or a hopper?				
3.36	86.0		200-00-0			
3.30	30.9	Is dredger maintained adequate clearance between vessels and the seabed at all states of the tide and reduce operations speed to ensure that excessive turbidity is not	V			
		generated by turbulence from vessel movement or propeller wash?				
3.37	86.0	Is the contractor shall regularly inspect the silt curtains and check that they are				
3.37	30.9	moored and marked to avoid danger to marine traffic? Is regular inspection on the	1/			
		integrity of the silt curtain carried out by the contractor and any damage to the silt				
		curtain shall be repaired by the contractor promptly?				
3.38	56.0					
3.30	30.9	Are all vessels have a clean ballast system?	V			
3.39	\$6.0	Are all vessels well maintained and inspected before use to limit any potential				1
0.08	30.9	discharges to the marine environment?	V		7.	
3.40	S6 9	Is any discharge of sewage/grey wastewater? Is wastewater from potentially				
20	[contaminated area on working vessels should be minimized and collected?	V			
3.41	S6.9	Is any soil waste disposed overboard?				



Item	EIA ref.		N/A	Yes	No	Photo/Remarks
No.						
4.00		Waste Management				
4.01	S8.5	Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at				
		public filling facilities and landfills?		V		
4.02	S8.5	Is a recording system implemented to record the amount of wastes generated, recycled and				
	i) i	disposed of?			L	
4.03	S8.5	IS the Contractor registered as a chemical waste producer?				
					Ш	
4.04	S8.5	Are chemical waste separated from other waste and collected by a licensed chemical waste				
		collector?				
4.05	S8.5	Are trip tickets for chemical waste disposal available for inspection?				
4.06	S8 5	Is chemical waste reused and recycled on site as far as practicable?				
	50.0	and the state of t		1		
4.07	58.5	Are all containers for chemical waste properly labelled?				
4.07	30.3	Arte an containers for chemical waste property fabelied?				
4.08	00.5					
4.08	58.5	Is chemical waste storage area used solely for storage of chemical waste and properly				
		labelled?				
4.09	S8.5	Are incompatible chemical wastes stored in different areas?		1		
				V		
4.10	S8.5	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?				
4.11	S8.5	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of		5		
		the largest container or of 20% by volume of the chemical waste stored in that area,				
		whichever is the greatest, provide?				
4.12	S8.5	Are a routine cleaning and maintenance programme implemented for drainage systems,			$\overline{\Box}$	
		sump pits, and oil interceptors?			Ш	
4.13	S8.5	Are sufficient general refuse disposal/collection points provided on site?				
4.14	S8.5	Is general refuse disposed of properly and regularly?				
				V		
4.15	S8.5	Are appropriate measures adopted to minimize windblown litter and dust during			10° - 10° -	
	50.5	transportation of waste?		~		
4.16	005	Are individual collectors for aluminum cans, plastic bottles and packaging material and				
7.10	36.3	office paper provided to encourage waste segregation?		V		
4.47	00.5					
4.17	88.5	Are C&D wastes sorted on site?		V		
4.18	S8.5	Are C&D waste disposed of properly?		4/		
				V		
4.19	S8.5	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of		5 7		-
		waste?		V		
4.20	S8.5	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?		A		
					Ш	
			L			



Item	EIA ref.	2	N/A	Yes	No	Photo/Remarks
No.						
	1			V-1102		
4.21	S8.5	Are the construction materials stored properly to minimize the potential for damage or				-
		contamination?				
4.22	S8.5	Is a dumping license obtained to deliver public fill to public filling areas?				
			Ш			
5.00	1	Landscape and Visual				
5.01	S11.10	Are Is site hoarding provided?				
	& 11.11					
5.02	S11.10 &	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?				
	11.11	political politi		2		
5.03	S11.10 &	Is construction light oriented away from the sensitive receivers?				
	11.11	as constant and a second a second and a second a second and a second a second and a second and a second and a	V			
5 04	S11.10	Is grass hydroseeding provided to slopes as soon as the completion of works?				
	& 11.11	as grade in according provided to stoped as soon as the completion of works.	V			
5.05		Are damages to trees outside site boundary due construction works avoided?				
0.00	11.11	and damages to need outside site obtained y due constituction works avoided:	/			
5.06		Is excavation works carried out manually instead of machinery operation within 2.5m				3
0.00		vicinity of any preserved trees?	0			
5.07		Are the retained and transplanted tree(s) properly protected and in good conditions?				
3.07	11.11	Price the relatined and transplanted tree(s) properly protected and in good conditions?	V			
5.08		Are surgery works carried out for damaged trees?				
3.00	11.11	Are surgery works carried out for damaged trees?				
6.00		Foology				
6.01		Ecology				
0.01	39.7	Is site runoff properly treated to prevent any silly runoff?		1		
2.00				V		1
6.02	S9.7	Are silt trap installed and well-maintained?		1		
				V	Ш	
6.03	S9.7	Are stockpiles properly covered to avoid generating silty runoff?		. /		
				V		
6.04	S9.7	Are construction works restricted to works area which are clearly defined?		1/		
6.05	S9.7	For slope mitigation works within the Clear Water Bay Country Park, are tree felling and	1	П		
		damages to trees, the exact locations of the flexible barrier foundation plates, soil nails and		ш		-
		rock dowels adjusted during detailed design, and a setback distance from existing trees is				
6.06	00.7	recommended to be maintained as far as practical?				
6.06	1	Are pruning of tree canopies along the alignment of the flexible barriers limited to a minimum?				
0.07						-
6.07		Are the alignment of flexible barriers optimized to preserve all species of conservation	1			
	1	interest and minimize the impact to the existing vegetation as far as practicable? Are the alignment of flexible barriers positioned at mininmum 1.5 m in a radius away from these		ш		·
		individuals?				
6.08		At the detailed design stage prior to the commencement of the slope mitigation works, is				
2.00		vegetation survey carried out at the slope mitigation areas within the Clear Water Bay				
l	1	January Commission of the Comm				



Item	EIA ref.	lact no. 15/ w5D/17 Design, build and Operate First Stage of is	N/A	Yes	No	Photo/Remarks
No.			11/12	100	110	Thoto/Remarks
	1	Country Park to assess the condition and identify the location of each individual of				
		Marsdenia lachnostoma and other flora species of conservation interest that may be directly				
		affected by the construction works?				
6.09	S9.7	Is temporary fencing installed to fence off the concerned species either in groups of				
		individually within the works area and in the close proximity to prevent from being	V			(S. S. B. P. S.
		damaged and disturbed during construction? Is a sign identifying the site attached to the				
		fence and flagging tape shall be attached to the individuals to visualize their locations?				
6.10	S9.7	Is a specification for fencing and demarcating individuals of Marsdenai lachnostoma (or				
		other flora species of conservation interest, if found) adjacent to the proposed alignment of				
		the flexible barriers prepared to protect the species?				
6.11	50.7					·
0.11	39.7	Is any induction training provided to all site personnel in order to brief them on this flora of				
		conservation interest including the locations and their importance?				
6.12	S9.7	Is the resident site supervisory staff closely monitor the conditions of concerned	Comme			
		individuals during construction of flexible barriers in the close proximity?				
6.13	S9.7	Are fences erected along the boundary of the works area before the commencement of	. /			
		works to prevent vehicle movements and encroachment of personnel onto adjacent areas?				-
6.14	S9.7	Is regular check of the work site boundaries performed to ensure that they are not breached				
		and that damage does not occur to surrounding areas?	V			
6.15	S9 7	Is any damage and disturbance avoided, particularly those caused by filling and illegal				
0.10	55.7	dumping, to the surrounding habitats through proper management of waste disposal?				
C 4C	00.7					
6.16	S9.7	Are temporarily affected areas reinstated, particularly the habitats of plantation and	11			
		shrubland-grassland immediately after completion of construction works, through on-site	V	Ш		
		tree/shrub planting?				
6.15	S9.7	Are affected habitats within the Clear Water Bay Country Bay reinstated by hydro-seeding				
		and planting of climbers and native shrub seedlings where practical upon completion of the				
	Ð	slope mitigation works?				
7.00		Landfill Gas Hazard				
7.01	S12.7	Are the safety procedures implemented to minimise the risks of fires and explosions,				
		asphyxiation of works and toxicity effects during all works?				
7.02	S12.7	Are the gas detection equipment and precautions being used during trenching and				
		excavation as well as creation of confined spaces?				
		executation as well as eleation of commed spaces:				
7.03	S12.7	Are the training with regard to the awareness of potential hazards of working in				
		confined spaces provided from the Contractor to the workers?	V			
						<u> </u>
7.04	S12.7	Are the safety officers trained with regard to landfill gas and leachate related hazards				
		and presented on the site throughout the works undertaken below grade?				
	р					
7.05	S12.7	Are the all personnel working on site and all visitor made aware of the possibility of				
7.03	514./					
		ignition of gas, the possible presence of contaminated water and the need to avoid	V			22. 1000
		physical contact?				
	L					



Item	EIA ref.		N/A	Yes	No	Photo/Remarks
No.						
7.06	S12.7	Is the monitoring of landfill gas being undertaken in all excavations, manholes, chambers and any confined spaces?				
7.07	S12.7	Are the monitoring frequency and areas being specified by the safety officers or appropriately qualified person? Are the all measurements being recorded and documented?				
7.08	S12.7	Is the drilling proceeded with adequate care and precautions against the potential hazards?				
7.09	S12.7	Is the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?	V			
7.10	S12.7	Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?	V			
7.11	S12.7	Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?	V			
7.12	S12.7	Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?	V			
8.00 8.01		Overall Is the EM&A properly implemented in general?				



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Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:									
Objernations									
No environno	ntal Sherro	often was	observed.						
Signatures:									
ET Representative	Contractor's Representative	Supervising C Representativ		entative	WSD's Representative				
Name: It a day	Oleman P. K.	(Nama: A)), 10.100 (Norma	NA,	Nama MA	,			



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

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: _	Inspected by: ET: Charles Un 15-16-20 Inspected by: Contractor: Tikking	elas	SO: Y.K	- Poon	WSD	WIA
Inspection Time:	14:35 - 16:30. Contractor: Tikking	ay Tsang	IEC:	uson he c	Cheing	
Weather		· -				
Condition	Sunny Fine Overcast Drizzle	Rain	Storm	Haz	zy	
Temperature	2.7 C Humidity High	Moderate	Low			
Wind	Calm Light Breeze Strong					
Item EIA ref.			N/A	Yes	No	Photo/Remarks
No.						
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?					
0.02	Is ET Leader's log-book kept readily available for inspections?					
1.00	Construction Dust					ousiv materials
1.01 S4.8.1	Are dusty materials, such as excavated materials, building debris and constr	ruction				pusty materials were bept wet
	materials, and exposed earth surface properly covered to prevent dust emiss	sion?	ď			1 <u>00-6 / // 100-4</u>
1.02 S4.8.1	Are screenings, enclosures, water spraying or vacuum cleaning devices pro	vided to				busty materials
	dusty construction works for dust suppression?					were left wet
	6				ш	swelling provide
1.03 S4.8.1	Are fumes or smoke emitting plants or construction activities shielded by a	screen?				310
					П	
	4		ш,	9		
1.04 S4.8.1	Are wheel-washing facilities with high-pressure water jets provided at all s.	ite exits?				
	S				Ш	
1.05 S4.8.1	Is wheel-washing provided to all vehicles leaving the site?					
1.06 S4.8.1	Are road section near the site exit free from dusty material?				П	
107 0101						
1.07 S4.8.1	Are all main haul roads inside the site paved or sprayed with water to minir	nize dust				pared, duty
4.00 04.0.1	emission during vehicle movement?	C 1		20, 30 1000000	U	natinal over cep
1.08 S4.8.1	Are water spraying provided immediately prior to any loading or transfer of	I dusty				wei
1.09 S4.8.1	materials? Are covers provided to all dump trucks carrying dusty materials when enter	ring and				No dump from
1.09 34.6.1	leaving the site?	ing and				compare was
1.10 S4.8.1	Are the working areas for uprooting of trees, shrubs, or vegetation or the re	moval of				oward
34.6.1	boulders, poles, pillars sprayed with water to maintain the entire surface we					
1.11 S4.8.1	Is exposed earth properly treated within six months after the last construction				_	
57.0,1	on site?	on activity				
1.12 S4.8.1	Does the operation of plants on site free form dark smoke emission?					/ a mar = 1 a a
				1		/ QPIMELALU



Item No.	EIA ref.		N/A	Yes	No	Photo/Remarks
1.13	S4.8.1	Are vehicles travelling at speed not exceeding 15km/hr within the site?				
1.14	S4.8.1	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?				
1.15	S4.8.1	Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?	·/			
1.16	S4.8.1	Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?		1		
1.17	S4.8.1	Is open burning prohibited?				
2.00		Construction Noise (Airborne)				The state of the s
2.01	S5.7	Are quiet plants adopted on site?				/ Noise laby
2.02		Are the PMEs operating on site well-maintained to minimize the generation of excessive niose?	5			maintenanu
2.03	S5.7	Are plants throttled down or turned off when not in use?				<u> </u>
2.04	S5.7	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?				Y- Nomearly
2.05	S5.7	Are moveable barriers provided to screen NSRs from plant or noisy operations?	V			NSK
2.06	S5.7	Are silencers, mufflers and enclosures provided to plants?				
2.07	S5.7	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?		V		
2.08	S5.7	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?		V		4
2.09	S5.7	Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?		V		
2.10	S5.7	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?	V			
2.11	S5.7	Are valid noise emission label(s) affixed to all air compressors operating on site?				3
2.12	S5.7	Are all construction noise permit(s) applied for percussive piling work?	V			2
2.13	S5.7	Are construction noise permit(s) applied for general construction works during restricted hours?		V		
2.14	S5.7	Are valid construction noise permit(s) displayed at all vehicular exits?		V		
3.00		Water Quality				
3.01	S6.9	Is effluent discharge license obtained for wastewater discharge from site?				M
3.02	S6.9	Is effluent discharged according to the effluent discharge license?				4 ru water
3.03	S6.9	Is wastewater discharge from site properly treated prior to discharge?	V			was observed





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Item	EIA ref.		N/A	Yes	No	Photo/Remarks
No.						
3.04	S6.9	Are perimeter channels provided to intercept storm runoff from outside the site?	V			
3.05	S6.9	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to				
		remove sand/silt particles from runoff?			Ш	
3.06	S6.9	Is surface runoff diverted to sedimentation facilities?				
		•				
3.07	S6.9	Is the drainage system properly maintained?	<u> </u>			
3.08	S6.9	Are construction works carefully programmed to minimize soil excavation works				
		during rainy seasons?		V		
3.09	S6.9	Are exposed soil surface protected by paving as soon as possible to reduce the			П	
		potential of soil erosion?				1
3.10	S6.9	Are temporary access roads protected by crushed gravel?				
3.11	S6.9	Are exposed slope surface properly protected?				F
3.12	S6.9	Is trench excavation avoided in the wet season as far as practicable, or if necessary,				
		backfilled in short sections after excavation?		V		
3.13	S6.9	Are open stockpiles of construction materials on site covered by tarpaulin or similar				
		fabric during construction?		9		
3.14	S6.9	Is runoff from wheel-washing facilities avoided?				
		,	Ш	V		W
3.15	S6.9	Is oil leakage or spillage prevented?				1 dulitray
3.16	S6.9	Are there any measures to prevent the release of oil and grease into the storm				1
		drainage system?		V		(management)
3.17	S6.9	Are the oil interceptors/ grease traps properly maintained?		V		
3.18	S6.9	Are debris and rubbish generated on site collected, handled and disposed of properly			FT	
		to avoid them entering the streams?				
3.19	S6.9	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas,				
		within bunds of capacity equal to 110% of the storage capacity of the largest tank?		V		
3.20	S6.9	Are tanks, containers, storage area bunded and the locations locked as far as possible				
		from the sensitive watercourse and stormwater drains?	Ш			
3.21	S6.9	Are sufficient chemical toilets provided on site to handle sewage from construction				
		work force?		V		
3.22	S6.9	Are sewage disposal and toilet maintenance of the portable chemical toilets provided				
		by the licensed contractors?				
3.23	S6.9	Is concrete washing water properly collected and treated prior to discharge?	J			
3.24	S6.9	Is suitable type of silt curtains deployed during dredging to reduce the elevation of			П	
		suspended solids to nearby sensitive receivers?	<u> </u>	Ш	Ш	
3.25	S6.9	Is closed grab dredger used to reduce the potential leakage of sediments?				4



Item	EIA ref.		N/A	Yes	No	Photo/Remarks
No.	89					
3.26	S6.9	Is closed grab dredger of 3 to 6 m ³ used for dredging at seawater intake?				
	S6.9	Is specific work staff assigned the responsibility for monitoring the number of grab dredged per hour? Is number of cycle limited to 20-21 grab per hour for 3m³ closed grab, 10-11 grab per hour for 6m³ closed grab?				
3.28		Is the grab operated in slow and controlled manner such that the impact to seabed by the grab when being lowered could be minimized? Is the operator ensured the grab be properly closed before lifting the grab?		2		
3.29		Is the maximum allowed dredging rate at the seawater intake limited to 750 m ³ /day while the maximum allowed dredging rate at the submarine outfall is 3,500 m ³ /day?				
3.30	S6.9	Is dredged marine sediment disposed of in a gazetted marine disposal area in accordance with marine dumping permit conditions of the Dumping at Sea Ordinance (DASO)?				
3.31	=	Are disposal vessels fitted with tight bottom seals in order to prevent leakage of material during transport?				
3.32		Are barges filled to a level which ensures that material does not spill over during transport to the disposal site and that adequate freeboard is maintained to ensure that the decks are not washed by wave action?			п	
3.33		Are excess materials cleaned from decks and exposed fittings before the vessel is moved from the dredging area after dredging?				
3.34	S6.9	Are the contractor(s) confirmed that the works cause no visible foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the dredging site?	l			
3.35		When the dredged material has been unloaded at the disposal areas, is any material accumulated on the deck or other exposed parts of the vessel removed and placed in the hold or a hopper?				
3.36		Is dredger maintained adequate clearance between vessels and the seabed at all states of the tide and reduce operations speed to ensure that excessive turbidity is not generated by turbulence from vessel movement or propeller wash?				
3.37		Is the contractor shall regularly inspect the silt curtains and check that they are moored and marked to avoid danger to marine traffic? Is regular inspection on the integrity of the silt curtain carried out by the contractor and any damage to the silt curtain shall be repaired by the contractor promptly?				
3.38	S6.9	Are all vessels have a clean ballast system?				
3.39		Are all vessels well maintained and inspected before use to limit any potential discharges to the marine environment?				
3.40		Is any discharge of sewage/grey wastewater? Is wastewater from potentially contaminated area on working vessels should be minimized and collected?				
3.41	S6.9	Is any soil waste disposed overboard?				9



tem E	EIA ref.		N/A	Yes	No	Photo/Remarks
No.						20
4.00	ZZ	Waste Management				
4.01		is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at				
	100000000000000000000000000000000000000	public filling facilities and landfills?				
		•				
4.02	S8.5	s a recording system implemented to record the amount of wastes generated, recycled and		\square		
		disposed of?			Ш	
4.03	S8.5	IS the Contractor registered as a chemical waste producer?				
4.04	S8.5	Are chemical waste separated from other waste and collected by a licensed chemical waste		$\overline{\Box}$	F	
		collector?		Ш		<u></u>
4.05	S8.5	Are trip tickets for chemical waste disposal available for inspection?		$\overline{}$		
				Ш		
4.06	S8.5	Is chemical waste reused and recycled on site as far as practicable?				
4.00	56.5	to offermour waste reased and ree, even on one as an as pro-				
4.07	CO 6	Are all containers for chemical waste properly labelled?				
4.07	36.3	Are an containers for chemical waste properly facehous				
4.08	S8.5	is chemical waste storage area used solely for storage of chemical waste and properly				
		labelled?				
4.09	S8.5	Are incompatible chemical wastes stored in different areas?				
4.10	S8.5	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?				
4.11	S8.5	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of				
		the largest container or of 20% by volume of the chemical waste stored in that area,				
		whichever is the greatest, provide?				
4.12	S8.5	Are a routine cleaning and maintenance programme implemented for drainage systems,				
		sump pits, and oil interceptors?	Ш			
4.13	S8.5	Are sufficient general refuse disposal/collection points provided on site?				
4.14	S8.5	Is general refuse disposed of properly and regularly?				
202 20 20.				1		
4.15	S8 5	Are appropriate measures adopted to minimize windblown litter and dust during				
,	50.5	transportation of waste?				
4.16	CQ 5	Are individual collectors for aluminum cans, plastic bottles and packaging material and				
7.10	د.ەدا	office paper provided to encourage waste segregation?				
4.47	00.5					1
4.17	38.3	Are C&D wastes sorted on site?		/		
4.18	S8.5	Are C&D waste disposed of properly?				
4.19	S8.5	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of				
		waste?				
4.20	S8.5	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?				0



Item	EIA ref.		N/A	Yes	No	Photo/Remarks
No.	1					TN.
	1					
4.21	S8.5	Are the construction materials stored properly to minimize the potential for damage or				
		contamination?				
4.22	S8.5	Is a dumping license obtained to deliver public fill to public filling areas?			$\overline{}$	
5.00		Landscape and Visual	20			
85 2005	S11.10	Are Is site hoarding provided?				
	& 11.11	S Provinces				
5.02	NAME OF BESTAGE NAME	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?		Ш.		
	11.11	The regention distantiation minimized of son protected to reduce potential son crosson?				
5.03		Is construction light oriented away from the sensitive receivers?				1
0.00	11.11	as constituents fight of chica away from the sensitive receivers?				
5.04	S11.10	Is grass hydroseeding provided to slopes as soon as the completion of works?				
0.04	& 11.11	as grass hydrosecumg provided to slopes as soon as the completion of works?				
5.05		Are damages to trees outside site boundary due construction works avoided?				
0.00	11.11	Arte damages to nees outside site boundary due construction works avoided?				
5.06		To account in market and all a control of the contr				
3.00	11.11	Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?				
E 07						
3.07	11.11	Are the retained and transplanted tree(s) properly protected and in good conditions?				
E 00		A				
3.06	11.11	Are surgery works carried out for damaged trees?				
C 00	11.11	D. 1				
6.00	00.7	Ecology				
6.01	S9.7	Is site runoff properly treated to prevent any silly runoff?				
6.02	S9.7	Are silt trap installed and well-maintained?				
			Ш			
6.03	S9.7	Are stockpiles properly covered to avoid generating silty runoff?				
6.04	S9.7	Are construction works restricted to works area which are clearly defined?				
				/		-
6.05	S9.7	For slope mitigation works within the Clear Water Bay Country Park, are tree felling and				
		damages to trees, the exact locations of the flexible barrier foundation plates, soil nails and	Ш			
		rock dowels adjusted during detailed design, and a setback distance from existing trees is				
6.06	00.7	recommended to be maintained as far as practical?				
6.06	39.7	Are pruning of tree canopies along the alignment of the flexible barriers limited to a minimum?				
6.07	20.7					
6.07		Are the alignment of flexible barriers optimized to preserve all species of conservation				
		interest and minimize the impact to the existing vegetation as far as practicable? Are the alignment of flexible barriers positioned at minimum 1.5 m in a radius away from these	4	ш		
		individuals?				
6.08		At the detailed design stage prior to the commencement of the slope mitigation works, is				
2.50		vegetation survey carried out at the slope mitigation areas within the Clear Water Bay				



	EIA ref.	-	N/A	Yes	No	Photo/Remarks
No.						
		Country Park to assess the condition and identify the location of each individual of				
		Marsdenia lachnostoma and other flora species of conservation interest that may be directly				
0.00	00.7	affected by the construction works?				
6.09	S9.7	Is temporary fencing installed to fence off the concerned species either in groups of			8	
		individually within the works area and in the close proximity to prevent from being damaged and disturbed during construction? Is a sign identifying the site attached to the		-		
		fence and flagging tape shall be attached to the individuals to visualize their locations?				
C 10	00.7	Is a specification for fencing and demarcating individuals of Marsdenai lachnostoma (or				
6.10	59.7	other flora species of conservation interest, if found) adjacent to the proposed alignment of				
		the flexible barriers prepared to protect the species?				
6.11	S9.7	Is any induction training provided to all site personnel in order to brief them on this flora of				
0.11	39.7	conservation interest including the locations and their importance?				
0.40	00.7	-				
6.12	59.7	Is the resident site supervisory staff closely monitor the conditions of concerned				
		individuals during construction of flexible barriers in the close proximity?				
6.13	S9.7	Are fences erected along the boundary of the works area before the commencement of	M			
	Œ	works to prevent vehicle movements and encroachment of personnel onto adjacent areas?	V		<u> </u>	
6.14	S9.7	Is regular check of the work site boundaries performed to ensure that they are not breached				
		and that damage does not occur to surrounding areas?				
6.15	S9.7	Is any damage and disturbance avoided, particularly those caused by filling and illegal			ГП	
		dumping, to the surrounding habitats through proper management of waste disposal?				-
6.16	S9.7	Are temporarily affected areas reinstated, particularly the habitats of plantation and				
		shrubland-grassland immediately after completion of construction works, through on-site	1			-
		tree/shrub planting?				
6.15	S9.7	Are affected habitats within the Clear Water Bay Country Bay reinstated by hydro-seeding				985 V p
		and planting of climbers and native shrub seedlings where practical upon completion of the				1
		slope mitigation works?				
7.00		Landfill Gas Hazard				
7.01	S12.7	Are the safety procedures implemented to minimise the risks of fires and explosions,				
		asphyxiation of works and toxicity effects during all works?				
7.02	S12.7	Are the gas detection equipment and precautions being used during trenching and				
		excavation as well as creation of confined spaces?				
		°	L			
7.03	S12.7	Are the training with regard to the awareness of potential hazards of working in				
		confined spaces provided from the Contractor to the workers?				gi.
			•			
7.04	S12.7	Are the safety officers trained with regard to landfill gas and leachate related hazards				NA 2000 - 1900
	012	and presented on the site throughout the works undertaken below grade?				
		and procented on the site unroughout the works undertaken coloring state.		Ш		
7.05	012.7	Assistance of the company of the control of the con				
7.05	S12.7	Are the all personnel working on site and all visitor made aware of the possibility of				
		ignition of gas, the possible presence of contaminated water and the need to avoid				10
		physical contact?				



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Item	EIA ref.		N/A	Yes	No	Photo/Remarks
No.						
7.06	S12.7	Is the monitoring of landfill gas being undertaken in all excavations, manholes, chambers and any confined spaces?				
7.07	S12.7	Are the monitoring frequency and areas being specified by the safety officers or appropriately qualified person? Are the all measurements being recorded and documented?				
7.08	S12.7	Is the drilling proceeded with adequate care and precautions against the potential hazards?				
7.09	S12.7	Is the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?				
7.10	S12.7	Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?				
	S12.7	Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?			1	
7.12	S12.7	Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?				
8.00		Overall	1	13		
8.01	10	Is the EM&A properly implemented in general?	A Share			



Remark / Follow up	of Observation(s) a	nd Non-comp	liance(s) of I	ast Weekly	/ Site Inspection	on:		
observatu	1(5)							
No major	n(s) observations	were of	served i	sn the	reporting	day.		
P.								
					Ÿ.			
							*	
Signatures:						·		
ET	G	• -		COL MATERIAL				
Representative	Contractor Representa		Supervisi Represent	ng Officer's tative	IEC's Represe	ntative	WSD's Representative	
W	_ 71)	•	Mr.		AT		
(Name: Chim	ent) (Name:	Hay Ting)	(Name: V	~ 11.00	W (Name:	Regisonhi)	(Name: N/A	,
<u> </u>	ai v	1,0,		19.10	by ((ranto,	RECOGNICE)	(TARILLE: 14 / 1)
				ww	>	8		



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

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspect	ion Date: _	20/10/2020	Inspected by:		javine Lai	so: Y.	k. Poon	wsr	N/A
Inspect	ion Time:_	14,33-17:00		Contractor:	Stilly Com	IEC:	NIT		
Weath	ier	,		77					
Condi	tion	Sunny Fine	Overcast	Drizzle	Rain	Storm	Ha	zy	
Temp	erature	28 c	Humidity	High	Moderate	Low			
Wind		Calm Light	Breeze	Strong					
		×							
Item	EIA ref.	4				N/A	Yes	No	Photo/Remarks
No.		General				-			
0.00			151		mate to the same	l —			
0.01		Is the current Environmental Permit		-	venicie site		V		·
0.00		entrances/exits for public's informati							
0.02		Is ET Leader's log-book kept readily	available for i	nspections?					
1.00		Construction Dust							may waterials
1.01	S4.8.1	Are dusty materials, such as excavate	d materials, b	uilding debris a	nd construction				overy westerials were liest wer
		materials, and exposed earth surface	properly cover	red to prevent d	ust emission?			ш	-
1.02	S4.8.1	Are screenings, enclosures, water spr	aying or vacuu	ım cleaning dev	vices provided to	2			
		dusty construction works for dust sup	pression?				1		water spiging
		П							4
1.03	S4.8.1	Are fumes or smoke emitting plants of	or construction	activities shield	ded by a screen?	-			
									-
1.04	S4.8.1	Are wheel-washing facilities with hig	nh-nressure wa	ter iets provide	d at all site exits?	+			
	5	The vincer masning racinties with ing	, pressure wa	ioi jois provido	a at all site exits.				
1.05	S4.8.1	Is wheel-washing provided to all veh	icles leaving th	ne site?		$\top \Box$			
								Ш	
1.06	S4.8.1	Are road section near the site exit fre	e from dusty n	naterial?				П	
4.07	2404					<u> </u>			
1.07	S4.8.1	Are all main haul roads inside the site	e paved or spra	iyed with water	to minimize dust		V		panel espaye
1.00	04.0.1	emission during vehicle movement?		1 1	0 01				
1.00	S4.8.1	Are water spraying provided immedia	ately prior to a	ny loading or tr	anster of dusty				
1.00	04.0.1	materials?				 			
1.09	S4.8.1	Are covers provided to all dump truck	ks carrying du	sty materials wh	nen entering and	./			Ω
1.10	04.0.1	leaving the site?	0. 1.1	o u entreprise par 100 € 100 € 100 €					
1.10	S4.8.1	Are the working areas for uprooting of							
4.44	04.0.1	boulders, poles, pillars sprayed with							
1.11	S4.8.1	Is exposed earth properly treated with on site?	ıın sıx months	after the last co	nstruction activity				
1.12	S4.8.1	Does the operation of plants on site fi	ree form dark	moke emission	9				
		processing operation of plants on site in	oo form dark s	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•				JAKIMM LANG



Item No.	EIA ref.		N/A	Yes	No	Photo/Remarks
1.13	S4.8.1	Are vehicles travelling at speed not exceeding 15km/hr within the site?		J		
	S4.8.1	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?				obs (D
1.15	S4.8.1	Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?	V			
1.16		Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?				
1.17	S4.8.1	Is open burning prohibited?				
2.00		Construction Noise (Airborne)				
2.01	S5.7	Are quiet plants adopted on site?				V Mise land
2.02	S5.7	Are the PMEs operating on site well-maintained to minimize the generation of excessive niose?		V		v mamenare
2.03	S5.7	Are plants throttled down or turned off when not in use?				
2.04		Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?				6 mounty
2.05	S5.7	Are moveable barriers provided to screen NSRs from plant or noisy operations?	V			J WSK.
		Are silencers, mufflers and enclosures provided to plants?		7.		
2.07	S5.7	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?				
2.08		Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?		V		
2.09		Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?		1		
2.10	S5.7	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?				
		Are valid noise emission label(s) affixed to all air compressors operating on site?				
		Are all construction noise permit(s) applied for percussive piling work?	V			
		Are construction noise permit(s) applied for general construction works during restricted hours?	, ,			Jupaetld enr
		Are valid construction noise permit(s) displayed at all vehicular exits?				
3.00 3.01		Water Quality Is effluent discharge license obtained for wastewater discharge from site?				
3.02		Is effluent discharged according to the effluent discharge license?				you mader
3.03	S6.9	Is wastewater discharge from site properly treated prior to discharge?				obsented.



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	EIA ref.		N/A	Yes	No	Photo/Remarks
No.						
3.04	S6.9	Are perimeter channels provided to intercept storm runoff from outside the site?				
3.05	S6.9	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to				
		remove sand/silt particles from runoff?		V		
3.06	S6.9	Is surface runoff diverted to sedimentation facilities?	K .			
3.07	S6 9	Is the drainage system properly maintained?				
			Ш			
3.08	S6.9	Are construction works carefully programmed to minimize soil excavation works				
		during rainy seasons?				.
3.09	S6.9	Are exposed soil surface protected by paving as soon as possible to reduce the				
		potential of soil erosion?		V	<u>LJ</u>	
3.10	S6.9	Are temporary access roads protected by crushed gravel?		V		
3.11	S6 9	Are exposed slope surface properly protected?	<u> </u>			и
	50.5	- Mo ongood and property of	V	Ш		
3.12	S6.9	Is trench excavation avoided in the wet season as far as practicable, or if necessary,				
		backfilled in short sections after excavation?	(8)	V		
3.13	S6.9	Are open stockpiles of construction materials on site covered by tarpaulin or similar				
		fabric during construction?		V		
3.14	S6.9	Is runoff from wheel-washing facilities avoided?			$\overline{\Box}$	
			1			
3.15	S6.9	Is oil leakage or spillage prevented?				
				V	Ш	Onip tray
3.16	S6.9	Are there any measures to prevent the release of oil and grease into the storm				
		drainage system?				
3.17	S6.9	Are the oil interceptors/ grease traps properly maintained?		V		
3.18	S6.9	Are debris and rubbish generated on site collected, handled and disposed of properly				
		to avoid them entering the streams?		√		
3.19	S6.9	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas,				
		within bunds of capacity equal to 110% of the storage capacity of the largest tank?	ш		Ш	
3.20	S6.9	Are tanks, containers, storage area bunded and the locations locked as far as possible			П	
		from the sensitive watercourse and stormwater drains?				
3.21	S6.9	Are sufficient chemical toilets provided on site to handle sewage from construction				
		work force?		V		
3.22	S6.9	Are sewage disposal and toilet maintenance of the portable chemical toilets provided			ГП	
	8	by the licensed contractors?				
3.23	S6.9	Is concrete washing water properly collected and treated prior to discharge?				-
3.24	S6.9	Is suitable type of silt curtains deployed during dredging to reduce the elevation of		П		
		suspended solids to nearby sensitive receivers?				
3.25	S6.9	Is closed grab dredger used to reduce the potential leakage of sediments?			$\overline{\Box}$	
	I					



Item EIA	ef.	N/A	Yes	No	Photo/Remarks
3.26 S6.9	Is closed grab dredger of 3 to 6 m ³ used for dredging at seawater intake?				
3.27 S6.9	Is specific work staff assigned the responsibility for monitoring the number of grab dredged per hour? Is number of cycle limited to 20-21 grab per hour for 3m ³ closed grab, 10-11 grab per hour for 6m ³ closed grab?				
3.28 S6.9	Is the grab operated in slow and controlled manner such that the impact to seabed by the grab when being lowered could be minimized? Is the operator ensured the grab be properly closed before lifting the grab?	V			
3.29 S6.9	Is the maximum allowed dredging rate at the seawater intake limited to $750 \text{ m}^3\text{/day}$ while the maximum allowed dredging rate at the submarine outfall is $3,500 \text{ m}^3\text{/day}$?				
3.30 S6.9	Is dredged marine sediment disposed of in a gazetted marine disposal area in accordance with marine dumping permit conditions of the Dumping at Sea Ordinance (DASO)?				
3.31 S6.9	Are disposal vessels fitted with tight bottom seals in order to prevent leakage of material during transport?	S			
3.32 S6.9	Are barges filled to a level which ensures that material does not spill over during transport to the disposal site and that adequate freeboard is maintained to ensure that the decks are not washed by wave action?				
3.33 S6.9	Are excess materials cleaned from decks and exposed fittings before the vessel is moved from the dredging area after dredging?				
3.34 \$6.9	Are the contractor(s) confirmed that the works cause no visible foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the dredging site?				
3.35 \$6.9	When the dredged material has been unloaded at the disposal areas, is any material accumulated on the deck or other exposed parts of the vessel removed and placed in the hold or a hopper?				
3.36 \$6.9	Is dredger maintained adequate clearance between vessels and the seabed at all states of the tide and reduce operations speed to ensure that excessive turbidity is not generated by turbulence from vessel movement or propeller wash?				
3.37 S6.9	Is the contractor shall regularly inspect the silt curtains and check that they are moored and marked to avoid danger to marine traffic? Is regular inspection on the integrity of the silt curtain carried out by the contractor and any damage to the silt curtain shall be repaired by the contractor promptly?	V			
3.38 S6.9	Are all vessels have a clean ballast system?				
3.39 S6.9	Are all vessels well maintained and inspected before use to limit any potential discharges to the marine environment?				
3.40 S6.9	Is any discharge of sewage/grey wastewater? Is wastewater from potentially contaminated area on working vessels should be minimized and collected?				
3.41 S6.9	Is any soil waste disposed overboard?				



Item	EIA ref.		N/A	Yes	No	Photo/Remarks
No.		·				
4.00		Waste Management				
4.01	S8.5	Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at	г			
		public filling facilities and landfills?				
4.00	00.7					
4.02		Is a recording system implemented to record the amount of wastes generated, recycled and				
		disposed of?				
4.03	S8.5	IS the Contractor registered as a chemical waste producer?				
4.04	S8.5	Are chemical waste separated from other waste and collected by a licensed chemical waste		1		
		collector?		<u> </u>		
4.05	S8.5	Are trip tickets for chemical waste disposal available for inspection?				
			Ľ	ш		3
4.06	S8.5	Is chemical waste reused and recycled on site as far as practicable?				To Sold Sold Sold Sold Sold Sold Sold Sol
4.07	S8.5	Are all containers for chemical waste properly labelled?				
			Ш	رتا		
4.08	S8.5	Is chemical waste storage area used solely for storage of chemical waste and properly				
		labelled?				
4.09	S8.5	Are incompatible chemical wastes stored in different areas?				
				Ш		
4.10	S8.5	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?				
		w'		V		
4.11	S8.5	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of				
		the largest container or of 20% by volume of the chemical waste stored in that area,				
		whichever is the greatest, provide?				
4.12	S8.5	Are a routine cleaning and maintenance programme implemented for drainage systems,				
		sump pits, and oil interceptors?	Ш	V		-
4.13	S8.5	Are sufficient general refuse disposal/collection points provided on site?		ΓŃ	FT	
4.14	S8.5	Is general refuse disposed of properly and regularly?			П	
				V		
4.15	S8.5	Are appropriate measures adopted to minimize windblown litter and dust during				***
		transportation of waste?		V		
4.16	S8.5	Are individual collectors for aluminum cans, plastic bottles and packaging material and				
		office paper provided to encourage waste segregation?				
4.17	S8.5	Are C&D wastes sorted on site?		7		
				V		
4.18	S8.5	Are C&D waste disposed of properly?				
				7		
4.19	S8.5	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of			$\overline{}$	
		waste?	V			
4.20	S8.5	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?		/		
100			- 1			



Item	EIA ref.		N/A	Yes	No	Photo/Remarks
No.						
			-3			
4.21	S8.5	Are the construction materials stored properly to minimize the potential for damage or			П	
		contamination?		\checkmark		
4.22	S8.5	Is a dumping license obtained to deliver public fill to public filling areas?				,
					0	
5.00		Landscape and Visual			**	
5.01		Are Is site hoarding provided?	,			
	& 11.11					
5.02	S11.10 &	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?				
	11.11			1		
5.03	S11 10 &	Is construction light oriented away from the sensitive receivers?				
0.00	11.11	as construction right oriented away from the sensitive receivers:				
5.04		Is grass hydroseeding provided to slopes as soon as the completion of works?				
0.04	& 11.11	as grass hydrosecumg provided to stopes as soon as the completion of works?	· V			
5.05		Are demography transported with household and the second of the second o				
5.05	11.11	Are damages to trees outside site boundary due construction works avoided?				
F.00						
5.06	1	Is excavation works carried out manually instead of machinery operation within 2.5m				
F 07		vicinity of any preserved trees?				
5.07		Are the retained and transplanted tree(s) properly protected and in good conditions?				
	11.11				Ш	-
5.08	i i	Are surgery works carried out for damaged trees?				W
	11.11					-
6.00		Ecology				
6.01	S9.7	Is site runoff properly treated to prevent any silly runoff?		- / 1		
				i		
6.02	S9.7	Are silt trap installed and well-maintained?				
				V		
3.03	S9.7	Are stockpiles properly covered to avoid generating silty runoff?				pusey macurial
			V			west inpt we
6.04	S9.7	Are construction works restricted to works area which are clearly defined?				
				1		
5.05	S9.7	For slope mitigation works within the Clear Water Bay Country Park, are tree felling and				
		damages to trees, the exact locations of the flexible barrier foundation plates, soil nails and		V		
	Į į	ock dowels adjusted during detailed design, and a setback distance from existing trees is				
		ecommended to be maintained as far as practical?				
6.06	S9.7	Are pruning of tree canopies along the alignment of the flexible barriers limited to a				
	1	ninimum?	V	Ш		
3.07	S9.7	Are the alignment of flexible barriers optimized to preserve all species of conservation			ГП	
	ļ	nterest and minimize the impact to the existing vegetation as far as practicable? Are the				
		dignment of flexible barriers positioned at mininmum 1.5 m in a radius away from these				
		ndividuals?		,		
6.08	S9.7	At the detailed design stage prior to the commencement of the slope mitigation works, is			-	
	Y	regetation survey carried out at the slope mitigation areas within the Clear Water Bay				



Item	EIA ref.		N/A	Yes	No	Photo/Remarks
No.						
		Country Park to assess the condition and identify the location of each individual of			***************************************	
		Marsdenia lachnostoma and other flora species of conservation interest that may be directly	46			
ı		affected by the construction works?	Establish makes at			
6.09	S9.7	Is temporary fencing installed to fence off the concerned species either in groups of				
		individually within the works area and in the close proximity to prevent from being				
		damaged and disturbed during construction? Is a sign identifying the site attached to the				
		fence and flagging tape shall be attached to the individuals to visualize their locations?	,			
6.10	S9.7	Is a specification for fencing and demarcating individuals of Marsdenai lachnostoma (or				
		other flora species of conservation interest, if found) adjacent to the proposed alignment of		ш		E
6.11	00.7	the flexible barriers prepared to protect the species? Is any induction training provided to all site personnel in order to brief them on this flora of				
0.11	39.7	conservation interest including the locations and their importance?				
6.12	00.7	Is the resident site supervisory staff closely monitor the conditions of concerned				
0.12	59.7	individuals during construction of flexible barriers in the close proximity?	V			
0.40	00.7					
6.13	59.7	Are fences erected along the boundary of the works area before the commencement of works to prevent vehicle movements and encroachment of personnel onto adjacent areas?		1		
0.44	00.5					
6.14	89.7	Is regular check of the work site boundaries performed to ensure that they are not breached				
0.45	00.5	and that damage does not occur to surrounding areas?				
6.15	89.7	Is any damage and disturbance avoided, particularly those caused by filling and illegal				
0.10	~ -	dumping, to the surrounding habitats through proper management of waste disposal?		ш		
6.16	89.7	Are temporarily affected areas reinstated, particularly the habitats of plantation and				
		shrubland-grassland immediately after completion of construction works, through on-site tree/shrub planting?				
6.15	50.7	Are affected habitats within the Clear Water Bay Country Bay reinstated by hydro-seeding				
0.13	39.7	and planting of climbers and native shrub seedlings where practical upon completion of the	V			
		slope mitigation works?				
7.00		Landfill Gas Hazard				
	S12.7	Are the safety procedures implemented to minimise the risks of fires and explosions,				
	870000 54548	asphyxiation of works and toxicity effects during all works?				
7.02	S12.7	Are the gas detection equipment and precautions being used during trenching and			· · · · · · · ·	
7.02	J 12.7	excavation as well as creation of confined spaces?		Г		
		order and an order of commed spaces.				
7.03	S12.7	Are the training with regard to the awareness of potential hazards of working in				
7.03	512.7	confined spaces provided from the Contractor to the workers?				
		commed spaces provided from the contractor to the workers:				
7.04	S12.7	Are the cofety officers trained with record to leadfill one and leach to related be and				
7.04	312.7	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?				#PAD and a Market
7.05	C12.7					
7.05	S12.7	Are the all personnel working on site and all visitor made aware of the possibility of				
		ignition of gas, the possible presence of contaminated water and the need to avoid				
		physical contact?				



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

Item	EIA ref.		N/A	Yes	No	Photo/Remarks
No.						
7.06	S12.7	Is the monitoring of landfill gas being undertaken in all excavations, manholes, chambers and any confined spaces?				
7.07	S12.7	Are the monitoring frequency and areas being specified by the safety officers or appropriately qualified person? Are the all measurements being recorded and documented?				
7.08	S12.7	Is the drilling proceeded with adequate care and precautions against the potential hazards?				
7.09	S12.7	Is the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?				
7.10	S12.7	Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?				
7.11	S12.7	Is each manhole or utility pit monitored with two measurements (at mid-depth and base) for minimum of 10 minutes? Is the steady reading and peak reading recorded at each manhole or utility pit?				
7.12	S12.7	Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?				
8.00 8.01		Overall Is the EM&A properly implemented in general?				

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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-c	compliance(s) of Last Weekly Site Inspection:
Observation (s)	
(i) Stock of more than 20 bo Demoved in an area with	h 3 sides covered at combine shelt area.
Reminderes	
conformers should be re	mized drip tray was remindled. Empired chemical amoved at combine shell area. & off. ActiDAFF
Construction authorities of	musing duity materials have to be grayed with natur
Signatures:	
ET Contractor's	Supervising Officer's IEC's WSD's
Representative Representative	Supervising Officer's IEC's WSD's Representative Representative
IN IN	NA NIA
(Name: Charlene Un (Name: Brian K	

20/10/2020



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

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date:		20/10/2050	Inspected by:	et: <u>û</u>	harlene Len	SO:	ymond	wsi	D: Wir Lan	
Inspection Time:_		09:30-12=33		Contractor:	Man Um	IEC:	Sun Lie C	meny	191 (g)	
Weat					(8)					
Cond	ition	Sunny Fine	Overcast	Drizzle	Rain	Storm	Ha	nzy		
Temp	erature	27 ·C	Humidity	High	Moderate	Low				
Wind		Calm Light	Breeze	Strong						
	7574 6					_				_
Item No.	EIA ref.					N/A	Yes	No	Photo/Remarks	
0.00		General					,			1
0.01		Is the current Environmental Permit	displayed cons	picuously at all	vehicle site					
		entrances/exits for public's information								
0.02		Is ET Leader's log-book kept readil	y available for	inspections?			V			
1.00		Construction Dust							Ostymateran	1
1.01	S4.8.1	Are dusty materials, such as excava-	ted materials, b	uilding debris ar	nd construction				were legit wet	
		materials, and exposed earth surface	properly cover	red to prevent di	ust emission?				to limit dust em	Leion
1.02	S4.8.1	Are screenings, enclosures, water sp		um cleaning dev	rices provided to				nety neteros	
		dusty construction works for dust su	ppression?						weblief ore	to
1.03	S4.8.1	Are fumes or smoke emitting plants	or construction	activities shield	ded by a screen?					1
		2								
	¥								17	1
1.04	S4.8.1	Are wheel-washing facilities with hi	igh-pressure wa	iter jets provideo	d at all site exits?					
1.05	S4.8.1	Is wheel-washing provided to all vel	hicles leaving th	ne site?						
1.06	S4.8.1	A ma mood anation manual the nite muit Co	C 1t				<u>Ľ</u>			
		Are road section near the site exit from	ee from dusty n	naterial?						
1.07	S4.8.1	Are all main haul roads inside the si		yed with water	to minimize dust				paved	
1.00	S4.8.1	emission during vehicle movement?		1 1:	C C1					
1.00	54.8.1	Are water spraying provided immed materials?	lately prior to a	iny loading or tr	ansier of dusty				were known to	
1.09	S4.8.1	Are covers provided to all dump true	cks carrying du	stv materials wh	en entering and				quait chust emis	
		leaving the site?	, ,	,			V			
1.10	S4.8.1	Are the working areas for uprooting	of trees, shrubs	s, or vegetation	or the removal of			$\overline{\Box}$		1
		boulders, poles, pillars sprayed with	water to mainta	ain the entire su	rface wet?		Ш			-
1.11	S4.8.1	Is exposed earth properly treated win on site?	thin six months	after the last co	nstruction activity		1			
1.12	S4.8.1	Does the operation of plants on site	free form dark	smoke emission	?	 			In roum labor	4
							V		A IN -AMINI (MPC)	4
						1	10-0-10-10-10-10-10-10-10-10-10-10-10-10		500 Carlos	J



	COILL	det no. 13/ W3D/ 17 Design, Dana and Operate 113t Stage of 15	cuile Kvvc	in O DC.	Sammati	ion riant
Item No.	EIA ref.		N/A	Yes	No	Photo/Remarks
1.13	S4.8.1	Are vehicles travelling at speed not exceeding 15km/hr within the site?		V		
1.14	S4.8.1	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?	V			No stocked more than suboys of
1.15	S4.8.1	Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?	J			- isinch
1.16	S4.8.1	Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?		J		
1.17	S4.8.1	Is open burning prohibited?				
2.00		Construction Noise (Airborne)				
2.01	S5.7	Are quiet plants adopted on site?		V		Samplant+
2.02	S5.7	Are the PMEs operating on site well-maintained to minimize the generation of excessive niose?		V		Vindename.
2.03	S5.7	Are plants throttled down or turned off when not in use?				
2.04	S5.7	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?	J			y way
2.05	S5.7	Are moveable barriers provided to screen NSRs from plant or noisy operations?	V			MY.
2.06	S5.7	Are silencers, mufflers and enclosures provided to plants?				
2.07	S5.7	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?		V		-
2.08	S5.7	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?		V		
2.09	S5.7	Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?				
2.10	S5.7	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?		4		
2.11	S5.7	Are valid noise emission label(s) affixed to all air compressors operating on site?				
2.12	S5.7	Are all construction noise permit(s) applied for percussive piling work?	V			
2.13		Are construction noise permit(s) applied for general construction works during restricted hours?				8
2.14		Are valid construction noise permit(s) displayed at all vehicular exits?		V		
3.00		Water Quality				
		Is effluent discharge license obtained for wastewater discharge from site?				
3.02	S6.9	Is effluent discharged according to the effluent discharge license?	V			I to wacer us of
3.03	S6.9	Is wastewater discharge from site properly treated prior to discharge?	V) doy.



Item	EIA ref.		N/A	Yes	No	Photo/Remarks
No.						
3.04	S6.9	Are perimeter channels provided to intercept storm runoff from outside the site?				
3.05	S6.9	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to			П	§
		remove sand/silt particles from runoff?			Ш	
3.06	S6.9	Is surface runoff diverted to sedimentation facilities?		V		
3.07	S6.9	Is the drainage system properly maintained?				
3.08	S6.9	Are construction works carefully programmed to minimize soil excavation works during rainy seasons?		1		
3.09	S6.9	Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil erosion?		V		
3.10	S6.9	Are temporary access roads protected by crushed gravel?		V		
3.11	S6.9	Are exposed slope surface properly protected?	V			d
3.12	S6.9	Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation?		1		
3.13	S6.9	Are open stockpiles of construction materials on site covered by tarpaulin or similar				
		fabric during construction?		V		
3.14	S6.9	Is runoff from wheel-washing facilities avoided?		V		
3.15	S6.9	Is oil leakage or spillage prevented?				
3.16	S6.9	Are there any measures to prevent the release of oil and grease into the storm drainage system?		/		
3.17	S6.9	Are the oil interceptors/ grease traps properly maintained?				
3.18	S6.9	Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams?		V		obs W
3.19	S6.9	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank?		V		
3.20	S6.9	Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?		V		
3.21	S6.9	Are sufficient chemical toilets provided on site to handle sewage from construction work force?				
3.22	S6.9	Are sewage disposal and toilet maintenance of the portable chemical toilets provided				
2.00	06.0	by the licensed contractors?		√		
3.23		Is concrete washing water properly collected and treated prior to discharge?				
3.24		Is suitable type of silt curtains deployed during dredging to reduce the elevation of suspended solids to nearby sensitive receivers?				
3.25	S6.9	Is closed grab dredger used to reduce the potential leakage of sediments?	V			



Item No.	EIA ref.		N/A	Yes	No	Photo/Remarks
3.26	S6.9	Is closed grab dredger of 3 to 6 m ³ used for dredging at seawater intake?				
3.27		Is specific work staff assigned the responsibility for monitoring the number of grab dredged per hour? Is number of cycle limited to 20-21 grab per hour for 3m ³ closed grab, 10-11 grab per hour for 6m ³ closed grab?				
3.28	N 1000000	Is the grab operated in slow and controlled manner such that the impact to seabed by the grab when being lowered could be minimized? Is the operator ensured the grab be properly closed before lifting the grab?		7.		v
3.29	S6.9	Is the maximum allowed dredging rate at the seawater intake limited to 750 m ³ /day while the maximum allowed dredging rate at the submarine outfall is 3,500 m ³ /day?				
3.30	S6.9	Is dredged marine sediment disposed of in a gazetted marine disposal area in accordance with marine dumping permit conditions of the Dumping at Sea Ordinance (DASO)?				
3.31	S6.9	Are disposal vessels fitted with tight bottom seals in order to prevent leakage of material during transport?				a a
3.32	S6.9	Are barges filled to a level which ensures that material does not spill over during transport to the disposal site and that adequate freeboard is maintained to ensure that the decks are not washed by wave action?				
3.33	S6.9	Are excess materials cleaned from decks and exposed fittings before the vessel is moved from the dredging area after dredging?	V			
3.34	S6.9	Are the contractor(s) confirmed that the works cause no visible foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the dredging site?				, , ,
3.35	S6.9	When the dredged material has been unloaded at the disposal areas, is any material accumulated on the deck or other exposed parts of the vessel removed and placed in the hold or a hopper?	V			
3.36	S6.9	Is dredger maintained adequate clearance between vessels and the seabed at all states of the tide and reduce operations speed to ensure that excessive turbidity is not generated by turbulence from vessel movement or propeller wash?				
3.37		Is the contractor shall regularly inspect the silt curtains and check that they are moored and marked to avoid danger to marine traffic? Is regular inspection on the integrity of the silt curtain carried out by the contractor and any damage to the silt curtain shall be repaired by the contractor promptly?				
3.38	S6.9	Are all vessels have a clean ballast system?				
3.39		Are all vessels well maintained and inspected before use to limit any potential discharges to the marine environment?				
	S6.9	Is any discharge of sewage/grey wastewater? Is wastewater from potentially contaminated area on working vessels should be minimized and collected?	V			п
3.41	S6.9	Is any soil waste disposed overboard?				



Item	EIA ref.		N/A	Yes	No	Photo/Remarks
No.						
4.00		Waste Management				
4.01	S8.5	Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at				
		public filling facilities and landfills?				
4.02	S8 5	Is a recording system implemented to record the amount of wastes generated, recycled and				
1.02	50.5	disposed of?				
4.03	S8 5	IS the Contractor registered as a chemical waste producer?				
				V		
4.04	S8.5	Are chemical waste separated from other waste and collected by a licensed chemical waste				
		collector?	V			-
4.05	S8.5	Are trip tickets for chemical waste disposal available for inspection?				
4.06	S8.5	Is chemical waste reused and recycled on site as far as practicable?		_		
		-	V	Ш	Ш	1
4.07	S8.5	Are all containers for chemical waste properly labelled?				
4.08	C 9 5	Is showing water storage area and relative for the second of the second		<u> </u>		
4.00	36.3	Is chemical waste storage area used solely for storage of chemical waste and properly labelled?		V		
4.09	005					
4.09	36.3	Are incompatible chemical wastes stored in different areas?	V			
4.10	S8.5	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?				
4.11		Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of				
		the largest container or of 20% by volume of the chemical waste stored in that area,				
		whichever is the greatest, provide?				
4.12		Are a routine cleaning and maintenance programme implemented for drainage systems,				
1.10		sump pits, and oil interceptors?				
4.13	S8.5	Are sufficient general refuse disposal/collection points provided on site?				
4.14	S8.5	Is general refuse disposed of properly and regularly?				
				V		
4.15	S8.5	Are appropriate measures adopted to minimize windblown litter and dust during				700
	IX.	transportation of waste?		V	Ш	•
4.16	S8.5	Are individual collectors for aluminum cans, plastic bottles and packaging material and		M	T T	
		office paper provided to encourage waste segregation?	Ш			
4.17	S8.5	Are C&D wastes sorted on site?				
		8				
4.18	S8.5	Are C&D waste disposed of properly?			П	
						D-000011
4.19		Are unused C&D materials or chemicals recycled or reused to reduce the quantity of		^		
	3	waste?				
4.20	S8.5	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?				a



Unit C, 11/F., Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon T: 2333-6823 | F: 2333-1316 | E: genera@acuityhk.com | www.acuityhk.com

Item	EIA ref.		N/A	Yes	No	Photo/Remarks
No.						
4.21	S8.5	Are the construction materials stored properly to minimize the potential for damage or				
		contamination?		V		olosm
4.22	S8.5	Is a dumping license obtained to deliver public fill to public filling areas?			_	
				$\overline{}$		
5.00		Landscape and Visual				
5.01		Are Is site hoarding provided?				
	& 11.11					
5.02	S11.10 &	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?				
	11.11			V		
5.03	S11.10 &	Is construction light oriented away from the sensitive receivers?				
	11.11		V			
5.04	S11.10	Is grass hydroseeding provided to slopes as soon as the completion of works?	/			999
	& 11.11		V			
5.05	S11.10 &	Are damages to trees outside site boundary due construction works avoided?				
	11.11					
5.06		Is excavation works carried out manually instead of machinery operation within 2.5m				
3.00	11.11	vicinity of any preserved trees?		V		
F 07						
5.07		Are the retained and transplanted tree(s) properly protected and in good conditions?				
	11.11					
5.08		Are surgery works carried out for damaged trees?				
	11.11	,				
6.00		Ecology		el	p	
6.01	S9.7	Is site runoff properly treated to prevent any silly runoff?				
				10		(No dissumpe a
6.02	S9.7	Are silt trap installed and well-maintained?				-therepoints
				/		
6.03	S9.7	Are stockpiles properly covered to avoid generating silty runoff?				
	********** ***		^	V		
6.04	S9 7	Are construction works restricted to works area which are clearly defined?				
0,0 ,	57.7	and constitution works restricted to works area which are clearly defined:		V		
6.05	S9.7	For slane mitiration works within the Class Water Day County Dayle and C. W.				
0.00	37.1	For slope mitigation works within the Clear Water Bay Country Park, are tree felling and				
		damages to trees, the exact locations of the flexible barrier foundation plates, soil nails and	ш			
		rock dowels adjusted during detailed design, and a setback distance from existing trees is recommended to be maintained as far as practical?				
6.06	20.7	•	1			
0.00		Are pruning of tree canopies along the alignment of the flexible barriers limited to a	7			
0.07		minimum?		Г		
6.07	S9.7	Are the alignment of flexible barriers optimized to preserve all species of conservation	V			
		interest and minimize the impact to the existing vegetation as far as practicable? Are the		ш	Ш	
		alignment of flexible barriers positioned at minimum 1.5 m in a radius away from these				
		individuals?				
6.08	S9.7	At the detailed design stage prior to the commencement of the slope mitigation works, is		5		
	I	vegetation survey carried out at the slope mitigation areas within the Clear Water Bay			\Box	



No.		s .	N/A	Yes	No	Photo/Remarks
10.		Country Dork to occors the acquiring a little of the last				
		Country Park to assess the condition and identify the location of each individual of				
		Marsdenia lachnostoma and other flora species of conservation interest that may be directly	'			
2.00	S9.7	affected by the construction works?				
).09	39.7	Is temporary fencing installed to fence off the concerned species either in groups of				
		individually within the works area and in the close proximity to prevent from being		Ш		
		damaged and disturbed during construction? Is a sign identifying the site attached to the				
		fence and flagging tape shall be attached to the individuals to visualize their locations?				
3.10	89.7	Is a specification for fencing and demarcating individuals of Marsdenai lachnostoma (or				
		other flora species of conservation interest, if found) adjacent to the proposed alignment of				_
		the flexible barriers prepared to protect the species?				
3.11	S9.7	Is any induction training provided to all site personnel in order to brief them on this flora of	-/			
200000		conservation interest including the locations and their importance?	V			
5.12	S9.7	Is the resident site supervisory staff closely monitor the conditions of concerned				2
		individuals during construction of flexible barriers in the close proximity?	V			
.13	S9.7	Are fences erected along the boundary of the works area before the commencement of				
		works to prevent vehicle movements and encroachment of personnel onto adjacent areas?		V		
.14	S9.7	Is regular check of the work site boundaries performed to ensure that they are not breached				
		and that damage does not occur to surrounding areas?		V		
.15	S9.7	Is any damage and disturbance avoided, particularly those caused by filling and illegal				
		dumping, to the surrounding habitats through proper management of waste disposal?		V		
.16	50.7					•
10	39.1	Are temporarily affected areas reinstated, particularly the habitats of plantation and	1			
		shrubland-grassland immediately after completion of construction works, through on-site			12	
.15	20.7	tree/shrub planting?				
13	39.7	Are affected habitats within the Clear Water Bay Country Bay reinstated by hydro-seeding				
		and planting of climbers and native shrub seedlings where practical upon completion of the				•
00		slope mitigation works?				
- 1	310.7	Landfill Gas Hazard	,			
01		Are the safety procedures implemented to minimise the risks of fires and explosions,				
		asphyxiation of works and toxicity effects during all works?				
02 8		Are the gas detection equipment and precautions being used during trenching and				
		excavation as well as creation of confined spaces?	/			
						-
)3 S	312.7	Are the training with regard to the awareness of potential hazards of working in				
		confined spaces provided from the Contractor to the workers?				
			V			N
)4 S	12.7	Are the safety officers trained with regard to landfill gas and leachate related hazards				-
. 3						
		and presented on the site throughout the works undertaken below grade?	V			
_						
)5 S		Are the all personnel working on site and all visitor made aware of the possibility of				
		gnition of gas, the possible presence of contaminated water and the need to avoid				
	ļ	physical contact?				
- 1	ľ					
		ı				



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

Item	EIA ref.		N/A	Yes	No	Photo/Remarks
No.						
7.06	S12.7	Is the monitoring of landfill gas being undertaken in all excavations, manholes, chambers and any confined spaces?				
7.07		Are the monitoring frequency and areas being specified by the safety officers or appropriately qualified person? Are the all measurements being recorded and documented?				
7.08		Is the drilling proceeded with adequate care and precautions against the potential hazards?	V			
7.09		Is the method statement covering all normal and emergency procedures provided by the drilling contractor prior to the commencement of the site works?	√ v			
7.10		Are the below ground services entries being sealed to prevent gas entry? Are the grilled metal covers being used for below grade cable trenches?	J			
7.11		ls 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?	J			
7.12		Are the warning signs of the hazards of landfill gas and its possible presence on site posted in prominent places?	J			
8.00 8.01		Overall Is the EM&A properly implemented in general?		V		

Sdio



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

Parado / Fallonia of Ohio and Ohio and of					
Remark / Follow up of Observation(s) and Non-complia	ance(s) of Last Weekly Site I	nspection:			
Observation (5)			4.		
(1) Houseleeping was reminde were observed not stored p	ed as (20 ma	tyruis & genera	1 warts		
and interest in	was on in design	ated containers	, at		
Were observed but some	of of the				
Actibate and RO. areas.					
9					
,					
*					
v.					
Signatures:					
<u> </u>	0.00	TT 64			
ET Contractor's) Representative Representative	Supervising Officer's Representative	IEC's Representative	WSD's Representative		
Jan Comment	respiesoritanve	1/A	Representative		
	10		1111		
(Name: Charlen Lai (Yame: Brankan)	(Name: Ragual)	(Name:)	(Name: WKLAV)		

Ula

30/10



Appendix J

Complaint Log



Statistical Summary of Environmental Complaints

Reporting Period	Environmental Complaint Statistics			
	Frequency	Cumulative	Complaint Nature	
01 Oct 2020 -				
31 Oct 2020	0	0	N/A	

Statistical Summary of Environmental Summons

Reporting Period	Environmental Summons Statistics			
	Frequency	Cumulative	Details	
01 Oct 2020 -				
31 Oct 2020	0	0	N/A	

Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Prosecution Statistics				
	Frequency	Cumulative	Details		
01 Oct 2020 -					
31 Oct 2020	0	0	N/A		



Appendix K

Impact Monitoring Schedule of Next Reporting Month (BLANK)



(BLANK)