Tung Chung New Town Extension

11th PLG Meeting Date : 22 October 2024





Agenda



- 1. Confirmation of Last Meeting Minutes
- 2. Tung Chung East
 - a) Matters Arising from Last Meeting
 - b) Overview and Progress
 - c) Environmental Monitoring and Audit (EM&A)
- 3. Tung Chung West
 - a) Matters Arising from Last Meeting
 - b) Overview and Progress
 - c) Environmental Monitoring and Audit (EM&A)
- 4. AOB



1. Confirmation of Last Meeting Minutes



2. Tung Chung East

a) Matters Arising from Last Meeting

Response to Comment



- S.3.4.1: "The Project Team (East) reported that several discussions with EPD on the Centralised Environmental Database (CED) were conducted. EPD acknowledged that all Environmental Permit submissions and EM&A data were already publicly available through EPD website as well as the dedicated project website. The Chairman added that all the monitoring data could be provided upon EPD's request."
- EPD is planning to incorporate of all the environmental data in the vicinity of Lantau areas/waters, including but not limited to TCNTE project, into their CED database.

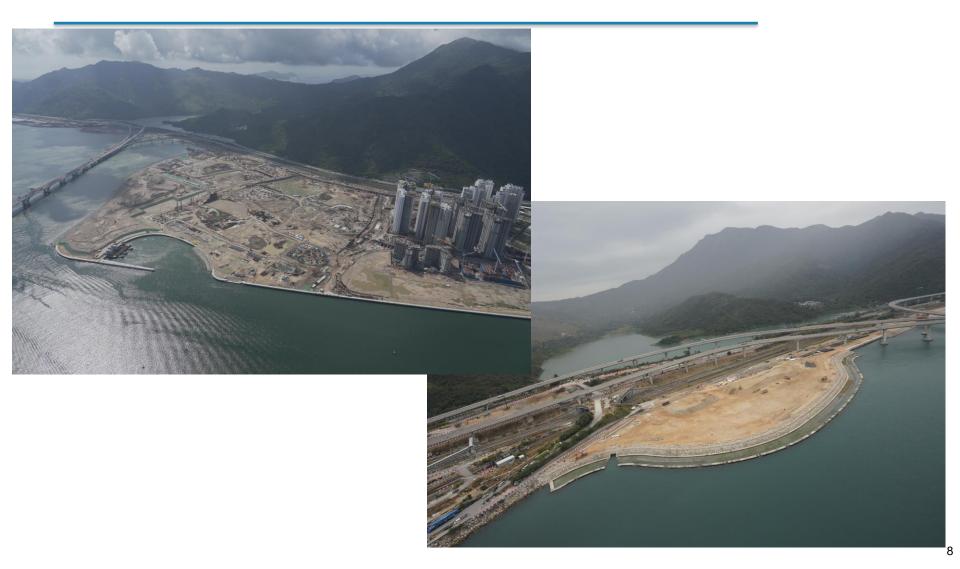


2. Tung Chung East b. Overview and Progress

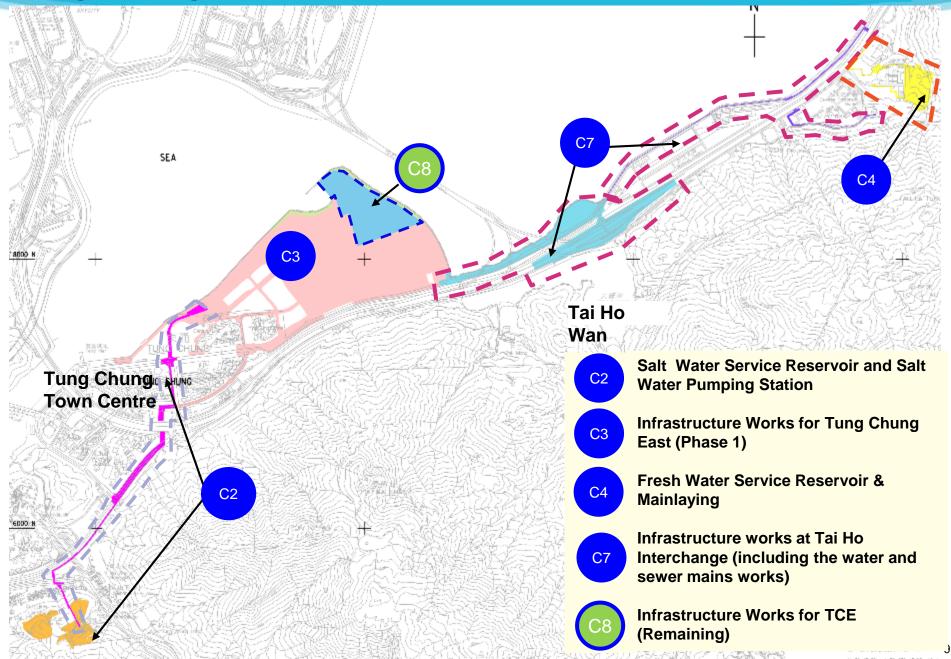


130 hectares land reclamation by non-dredged method
 Construction of 4.9 km seawalls partly with eco-shorelines (3.8km)

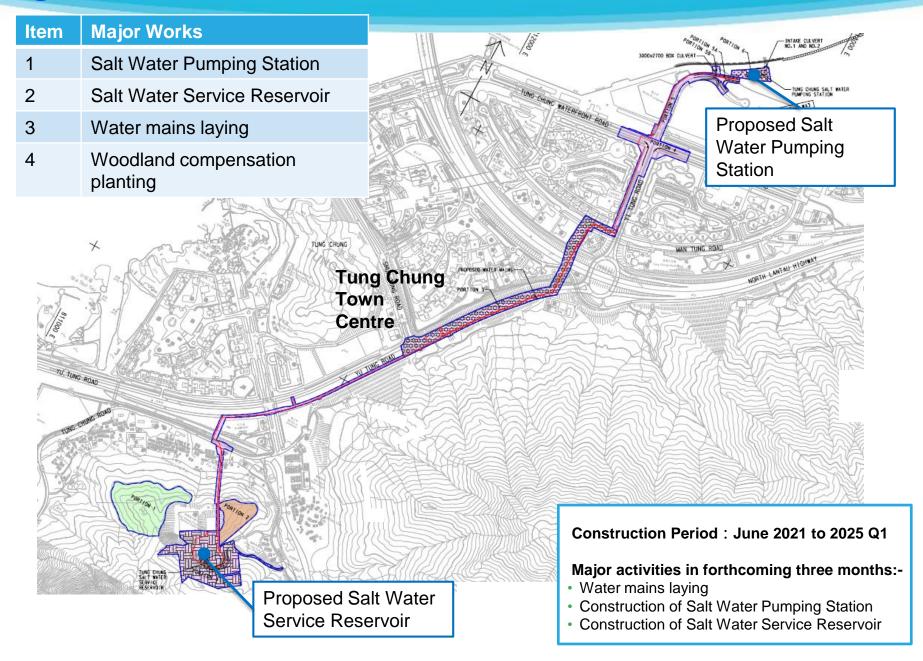
Tung Chung East Reclamation



Tung Chung East Infrastructure



^{c2} Contract No. NL/2020/02



Salt Water Pumping Station (SWPS)

Construction Period 2021 Q4 to 2024 Q4

Related Works

- E&M Works
- ABWF Works



Salt Water Service Reservoir

Construction Period 2022 Q2 to 2024 Q4

- Watermain Laying
- E&M Works



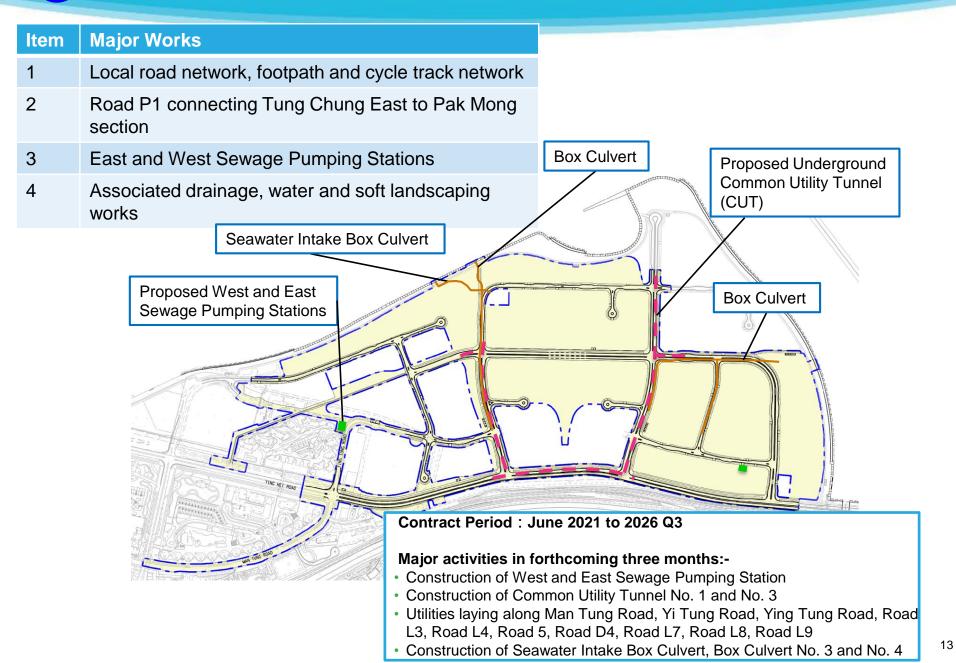
Watermain Laying

Construction Period 2021 Q4 to 2025 Q1

- TTA and traffic diversion
- Watermain Laying



Contract No. NL/2020/03



West Sewage Pumping Station (WSPS)

Construction Period 2021 Q3 to 2024 Q4

- ABWF works
- E&M Installation works



Common Utility Tunnel (CUT) (Phase 1)

Construction Period 2021 Q3 to 2025 Q1

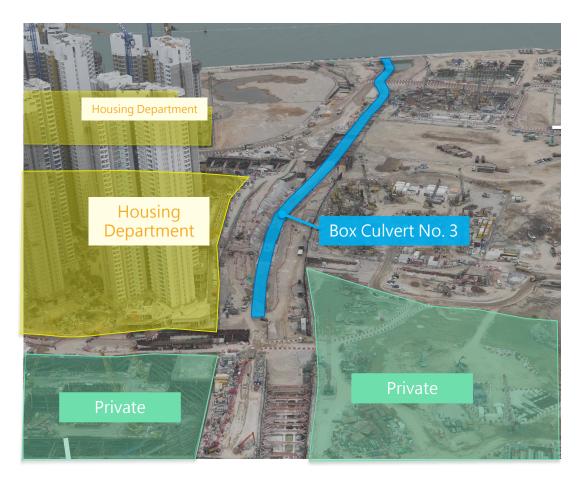
- ELS works
- Underground R.C. structures
- Backfilling Works



Box Culvert No. 3

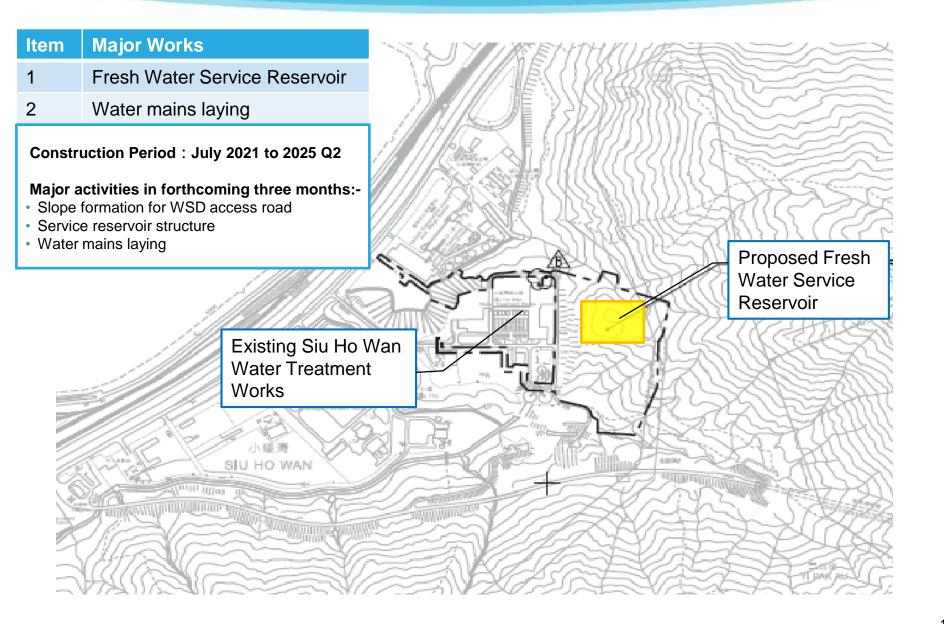
Construction Period 2023 Q4 to 2025 Q1

- ELS works
- Precast Units Installation
- Underground R.C. structures



Contract No. NL/2020/04

C4





Fresh Water Service Reservoir

Construction Period 2022 Q2 to 2025 Q2

- R.C. structures
- Slope works



Contract No. NL/2020/07

C7

Major Works Item Construction of Tai Ho Interchange 1 Construction of a section of dual two-lane road between Tung Chung East 2 and Tai Ho Interchange 3 Laying of fresh watermains, salt watermains and sewage rising mains Contract Period : Oct 2021 to 2025 Q4 Major construction activities in forthcoming three months:- Pak Mong Subway Extension Pak Mong Channel Bridge Main-Laying works Tai Ho Interchange SiuHoWan Legend: TAL HD BOX STRUCTURE ETAINING WALL : Freshwater Main BOX STRUCTURE : Saltwater Main : Sewage Rising Main RETAINING THE - U3 EXISTING BRIDGE : Road P1 Footpath Cycle Track RETAINING WALL :Tai Ho Interchange Tai Ho Wan PAK MONG CHANNEL BRIDGE Pak Mong Channel Bridge PAK MONG SUBWAY Pak Mong Subway Extension

Contract No. NL/2020/07

Pak Mong Subway Extension

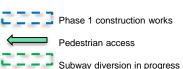
Construction Period 2022 Q2 to 2025 Q4

Related Works

- R.C. structure & Steel frame roof



Pak Mong Channel Bridge



Construction Period 2023 Q1 to 2025 Q2

Related Works

- Bridge construction



Main-laying works (Rising, Fresh and Salt Water Mains)

Construction Period 2021 Q3 to 2024 Q4 Related Works

- Rising Main-laying
- Fresh & Salt Water Main-laying



Construction of Tai Ho Interchange

Construction Period 2022 Q3 to 2025 Q4 Related Works

- Sign gantry
- Piling works
- R.C. structure
- Bridge construction
- Temporary Traffic Arrangement for sign gantry footing construction







Oyster Bags at Lower Terrace of Mangrove Eco-shoreline

Location	ES1	ES3W	ES3E
No. installed	5	17	18
Installed in Jan. 2024			
After Jun. 2024			

• The hemp net bag exposed to seawater degraded in about 5 months after installation. The oyster shells remain at the eco-shoreline.

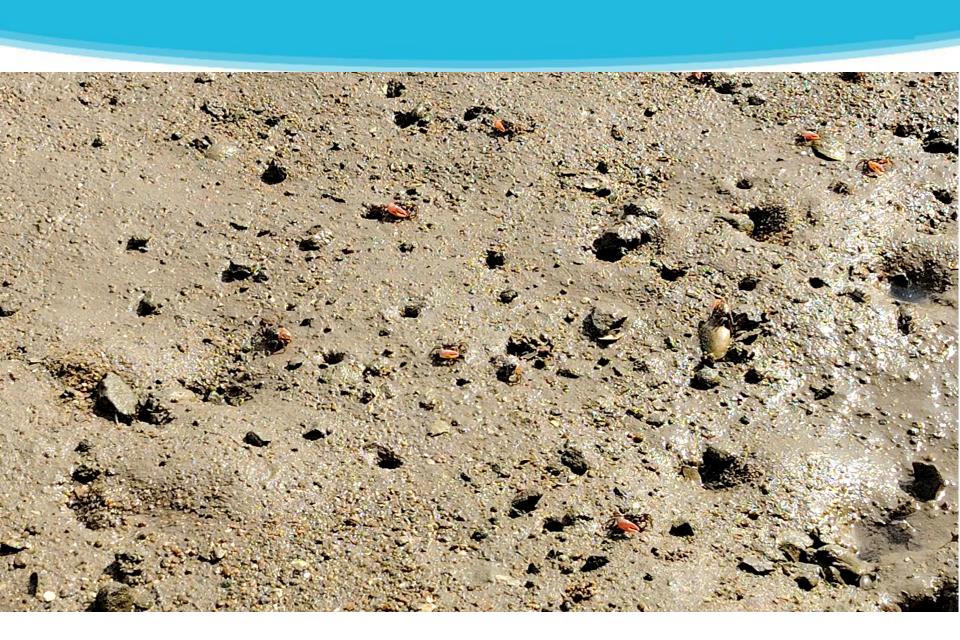


Ad-hoc Sea life Detection at Rocky and Mangrove Eco-shoreline

- Identify and test the PTZ cameras in the actual field (Tung Chung Bay and main site) (ongoing)
- Further collect marine creature images by PTZ
 & action cameras at the sites to enrich the species type & sample size for future AI model development (ongoing)
- Identify and label species in each collected images (upcoming)







Background:

 Eco-shoreline Implementation Plan was submitted in accordance with Project Environmental Permit (Permit No. EP-519/2016) Condition 2.14

Eco-shoreline Implementation Plan includes the following:

- Monitoring works on Mangrove Eco-shoreline, Vertical Eco-shoreline and Rocky Eco-shoreline
 - include Avifauna, Epifauna, Infauna, Vegetation and various physical parameters
 - carry out twice during dry session and twice during wet session
- Ichthyoplankton and Juvenile Fish survey
 carry out on a monthly basis from May to August
- Monitoring Work for 3 years







Contract No. NL/2020/03

Eco-shoreline Monitoring

Monitoring Location:



³ Contract No. NL/2020/03

Eco-shoreline Monitoring

Current Progress:

- Monitoring Works in Dry Session were completed
 Half-year report was submitted to EPD
- Monitoring Works in Wet Session were completed
 Data Analysis is on-going
- Ichthyoplankton and Juvenile Fish survey from May to August was completed
 Data Analysis is on-going
- 1st year monitoring works were completed

Eco-shoreline and Reference Monitoring in Dry Session:

- The conclusion is summarized as below:
- 1. 25 species were found in the Mangrove Eco-shoreline,
- 2. 58 species were found in Rocky Eco-shoreline versus 33 species found in its reference.
- 3. 28 species were found in the Vertical Eco-shoreline versus 10 species found in its reference
- 4. Generally, Eco-shoreline has a higher biodiversity than conventional reference locations in terms of number of species.
- 5. Subsequent wet season monitoring will further reveal the situation of community establishment throughout the year

Mangrove Eco-shoreline:

- Normal condition with acceptable mortality
- Alage observed, which may hinder the growth and affect the survival of mangrove

Rocky and Vertical eco-shoreline

- Higher biodiversity was observed
- The intrusions and water pool may provide microhabitats with lower heat and desiccation stress



Metopograpsus quadridentatus



Cellana grata



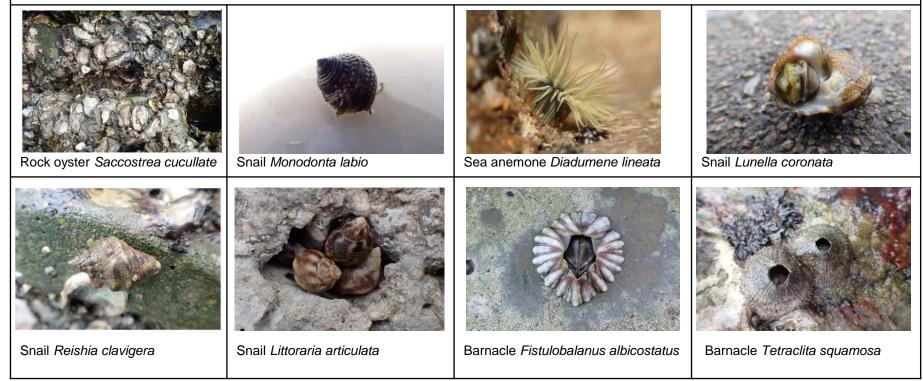
Onchidium sp.





Representative photographs of the abundant species and eco-shoreline features

Abundant Species



Representative photographs of the abundant species and eco-shoreline features

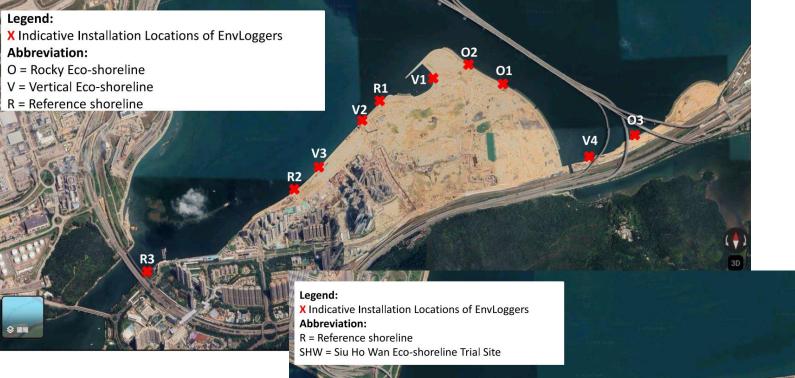
Abundant Species



Current Progress:

• Total 129 nos. temperature loggers were installed

Monitoring Location	No. of Monitoring Locations*	No. of temperature loggers at each location	No. of units for each type of Eco-shoreline /reference
			locations
Rocky Eco-shoreline	3	6 nos. for pool	54
		6 nos. for maze	
		6nos. for drillhole	
Vertical Eco-shoreline	4	12	48
Reference Location	3	3	9
Siu Ho Wan	1	18	18
		Total	129



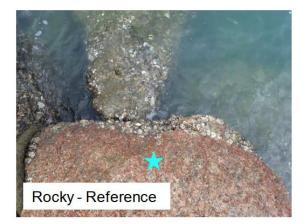


R(SHW)

• Location for Temperature Loggers at Rocky Eco-shoreline



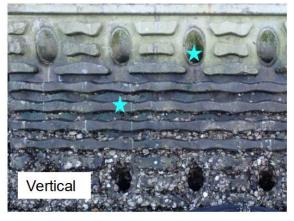
• Location for Temperature Loggers at Reference Point and Siu Ho Wan for Rocky Eco-shoreline







• Location for Temperature Loggers at Vertical Eco-shoreline



• Location for Temperature Loggers at Reference Point for Vertical Eco-shoreline

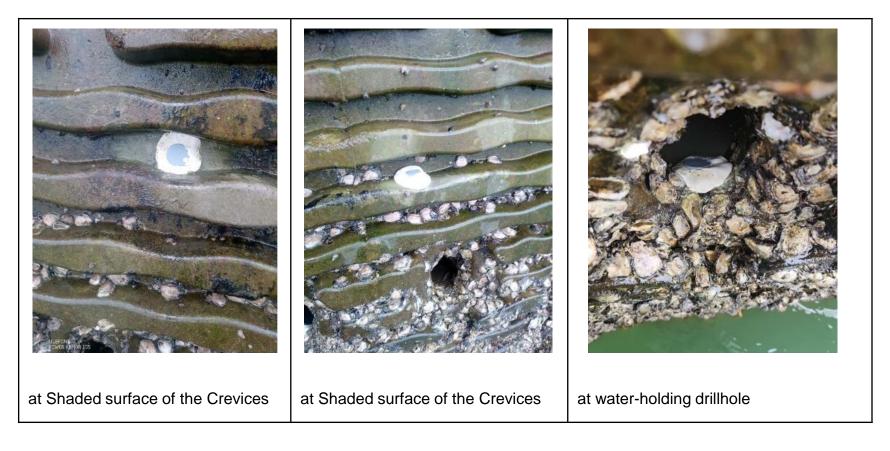


Photos for installed temperature loggers at Rocky Eco-shoreline



Temperature Loggers

Photos for installed temperature loggers at Vertical Eco-shoreline



Temperature Loggers

Temperature data in Aug and Sep 2024 are summarized as follow:

• 547,217 temp. data (°C) were retrieved from 105 spots of rocky and vertical eco-shoreline

Eco-shoreline Type	Eco-shoreline Features	Logger Spot	Mean	Max	Min
Rocky Eco-shoreline	Drillhole	Circle drillhole	30.5	46.2	25.4
		Rectangular drillhole	30.2	40.9	26
		Rock surface	31.6	57.7	24.4
	Maze	Maze A	29.9	41.3	25.9
		Maze B	30.3	42.5	26.1
	Rock Pool	Bottom surface	29.9	36.7	27
		Underneath stones/boulders	29.7	36	27
		Vertical surface (landside)	29.7	36.3	26.7
		Vertical surface (perpen. to tide)	29.9	36.8	26.9
		Vertical surface (seaside)	29.6	35.6	26.8
Rocky Eco-shoreline Reference	Boulder Surface at High Water Zone	Rock surface	30.3	50.3	25.3
Vertical Eco-shoreline	Crevices (shaded)	Shaded surface of the crevices	30.1	49.4	25.5
	Drillhole	Water-holding drillhole	29.2	37.1	26
Vertical Eco-shoreline Reference	Plain Concrete Surface at High Water Zone	Concrete Surface	30.0	53.3	25.1



2. Tung Chung East

c) Environmental Monitoring and Audit

Dedicated Website under EP-519/2016



Website: http://env.tcnte.hk/index-TCE.html



Tung Chung New Town Extension (East)

This dedicated website is set up in accordance with the requirements in the Environmental Permit (EP) (EP NO. EP-519/2016) to enable user-friendly public access of information of the Tung Chung New Town Extension (East) and the associated environmental monitoring data.

Protection and Mitigation Measures on Construction Activities





Water spraying by water truck for dust control



Wheel washing bay with high pressure jet



Sprinkler system



Noise monitoring



Noise barrier



Noise mitigation measures

Protection and Mitigation Measures on Construction Activities





Real time tracking and monitoring system for dump trucks

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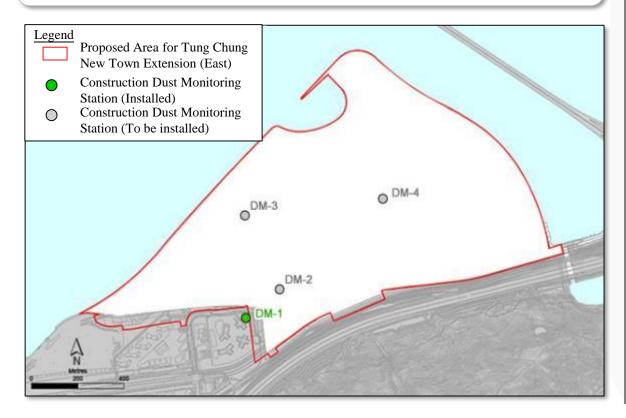
Trip ticket for waste control

EM&A Monitoring – Air Quality



Air Quality Monitoring

FrequencyThree times every six daysMonitoring Parameter1-hour Total Suspended Particulate





Monitoring Results between Mar and Aug 2024

No project-related exceedance was recorded.



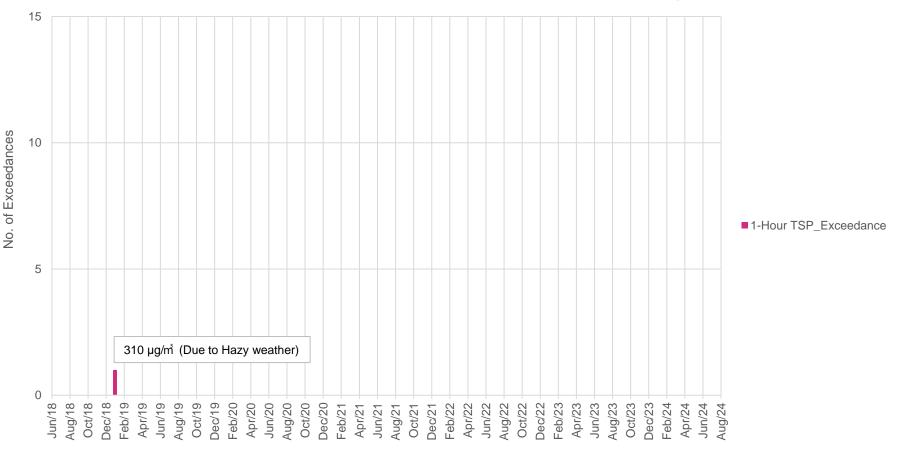
Dust monitoring near Ying Tung Estate (DM-1)

EM&A Monitoring – Air Quality



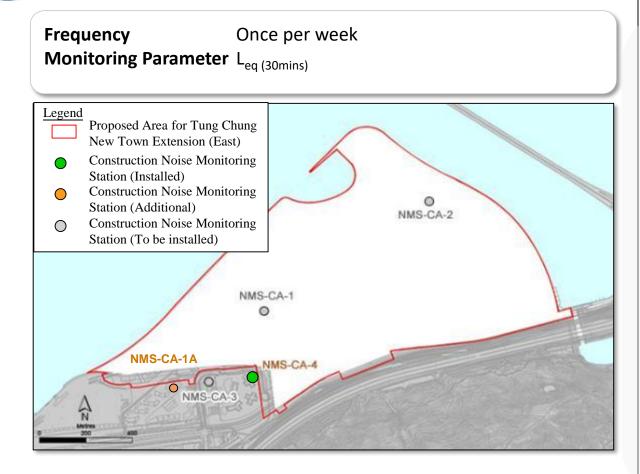
Tung Chung New Town Extension - Reclamation and Advance Works

1-Hour TSP Exceedance Record of Air Quality Monitoring



EM&A Monitoring – Noise

Noise Monitoring





Monitoring Results between Mar and Aug 2024

Results of noise monitoring indicated that noise levels were within acceptable level (75dBA)

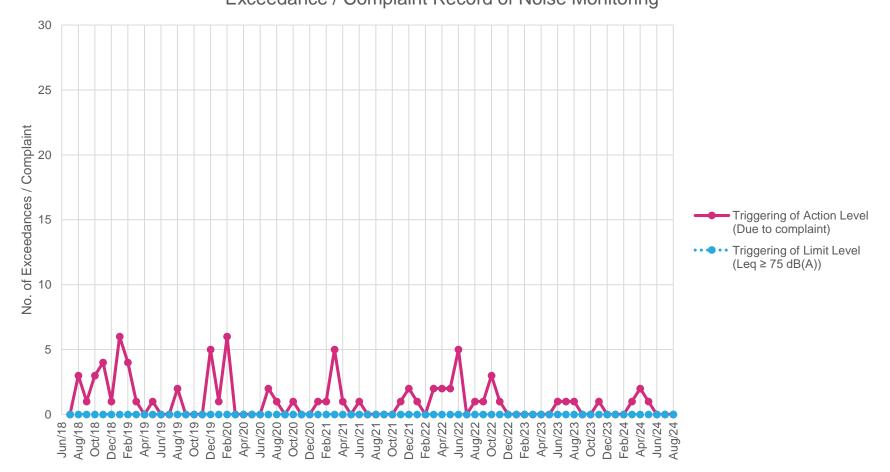


Noise monitoring near Ying Tung Estate (NMS-CA-4)

EM&A Monitoring – Noise



Tung Chung New Town Extension - Reclamation and Advance Works Exceedance / Complaint Record of Noise Monitoring

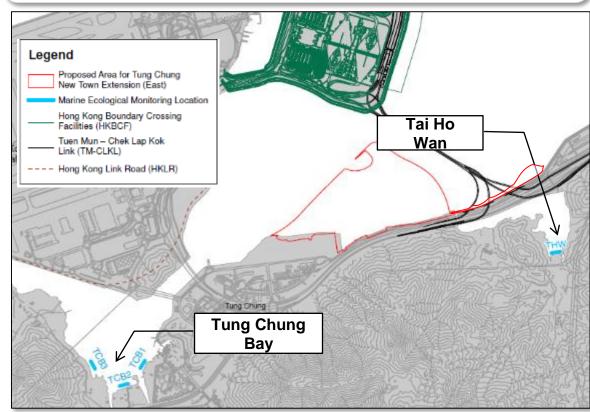


EM&A Monitoring – Ecology



Ecological Monitoring

FrequencyQuarterlyMonitoring ParameterHorseshoe Crabs, Seagrass, Intertidal
Soft Shore Communities





Monitoring Results between Mar and Jun 2024

Horseshoe crabs were found in both Tung Chung Bay and Tai Ho Wan.

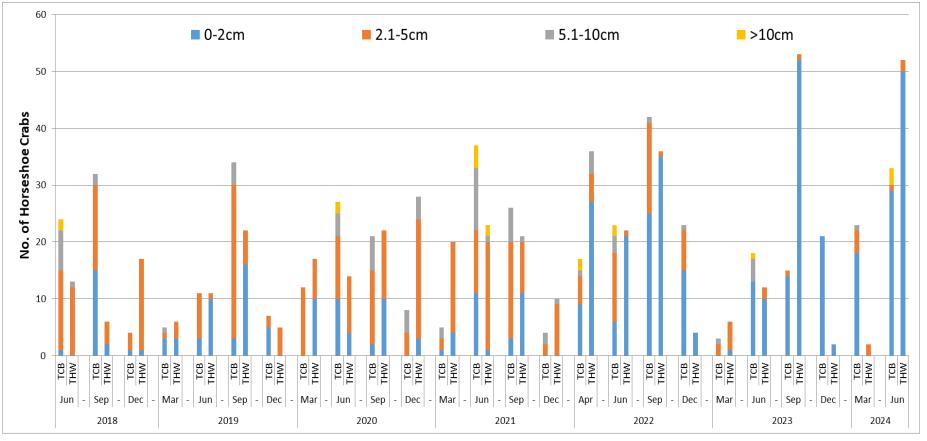




Horseshoe Crab



- Numbers of horseshoe crabs varied over time and were generally higher in summer period (May Sep)
- Small juvenile horseshoe crabs (prosomal width <2 cm) were recorded during all impact monitoring since Sep 2018



Baseline (May-Jun 18) Post-Construction Monitoring (Dec 2023)

Complaint received



Date	Water	Air	Noise	Others (Light, Waste. Ecology)	
March 2024	0	0	2	0	
April 2024	0	0	3	0	
May 2024	0	2	0	0	
June 2024	0	0	1	0	
July 2024	0	1	0	0	
August 2024	1	2	0	0	
September 2024	0	2	0	0	
Categories for recent complaints	 Plume near seawall 	DustYing Hei Road	 Noise at night and during restricted hours 		

3. Tung Chung West

a) Matters Arising from Last Meeting - Nil







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51

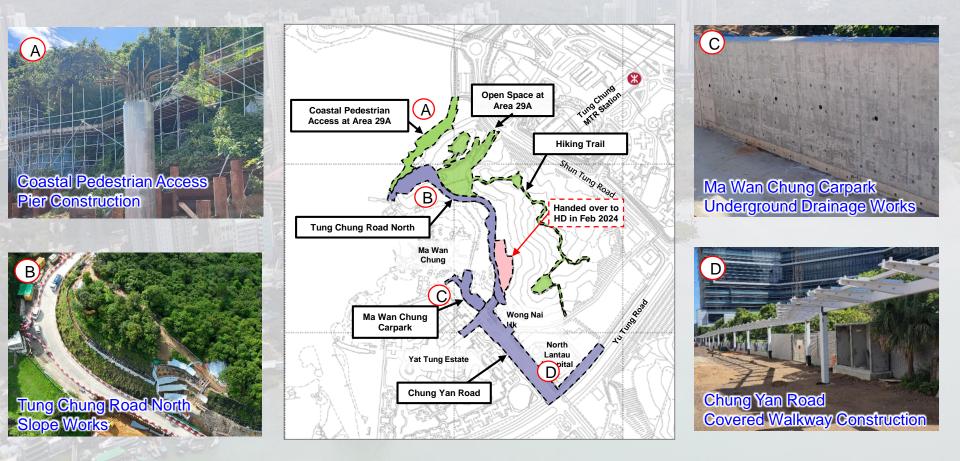
3. Tung Chung West

b) Overview and Progress

Contract No. NL/2020/05 – Site Formation & Infrastructure Works at Ma Wan Chung

ltem	Major Works		
1	Widening of Tung Chung Road North, Construction of Ma Wan Chung Carpark and Road Improvement Works and Drainage Works at Chung Yan Road		
2	Construction of Open Space at Area 29A and Coastal Pedestrian Access	Coastal Pedestrian	Open Space Area 294
3	Site Formation of Area 23 (Completed and handed over to Housing Department)	Access at Area 29A	
Contr	act Period:May 2021 to 2025		
Major	activities in coming three months :-		D) {{
• Slo	be works at Tung Chung Road North	Tung Chung Road North Ma Wan	
	nstruction of underground utilities and road works at Ma Wan Chung Carpark, Yu Tung ad, Chung Yan Road & Tung Chung Road North	Chung	1
• Cor	struction of covered walkway at Chung Yan Road	Ma Wan Chung Carpark	Wong
• Cor	struction of retaining walls		
• Upç	rading works of existing hiking trail at Area 29A	Yat Tung Estat	\mathbb{Z}
• Cor	struction of Coastal Pedestrian Access	Chung Yan R	oad
		The second state of the se	~

Contract No. NL/2020/05 – Site Progress



Contract No. NL/2020/06 – Site Formation and Infrastructure Works at Tung Chung Valley, Phase 1

ltem	Major Works	
1	Road Works at Yu Tung Road, Chung Mun Road, Road L29, Road L30 & Shek Mun Kap Road	Yu Tung Road
2 & 3	Sewage Pumping Stations	Chung Mun Road Bridge A
4	Common Utility Tunnel	Pord 120
5	River Park & Visitor Centre	River Park Road Loo
6	Bridges across Tung Chung Stream	Bridge B Area 42 Handed ove HD in May 2
7	Sustainable Urban Drainage System	Road L29
8	Woodland Compensatory Planting (Completed)	Shek Lau Po Visitor Centre
9	Site Formation at Area 42 & Area 46 (Completed and handed over to HD)	Common Utility Tunnel
	act Period:May 2021 to 2025 activities in coming three months :-	Shek Mun Kap Road
	struction of underground utilities and road works at Yu Tung Road, Chung Mun Road, d L29, Road L30 & Shek Mun Kap Road	
• Cons	struction of sewage pumping stations	Handed over to HD in Apr 2024
• Cons	struction of Common Litility Tunnel	

- Construction of Common Utility Tunnel
- Construction of River Park and Visitor Centre
- Construction of bridges

54

Contract No. NL/2020/06 – Site Progress









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56

3. Tung Chung West

c) Environmental Monitoring and Audit

Management Organisation



Major Components of EM&A for the Project in TCW

Environmental Submissions to be made before and during the construction including:

- Complaint Management Plan
- Waste Management Plan
- Plan on Provision of Buffer Zones
- River Park Plan
- Habitat Enhancement and Translocation Plan for Amphibian Species of Conservation Importance
- Detailed Preservation and/or Translocation Plan for Plant Species of Conservation Importance
- Detailed Compensatory Woodland Planting Plan
- Plan for Review of Use of New Low Noise Road Surfacing Material(s)

Environmental Monitoring during the construction stage:

- Air Quality Monitoring
- Noise Monitoring
- Stream Water Quality Monitoring
- Ecology Monitoring (Stream Water, Fish Species and Aquatic Invertebrates)
- Regular Site Inspection

Environmental Mitigation Measures for Construction Activities



Water spraying via sprinklers at main access road



Wheel washing facility at the site exit



Water spraying by water truck along haul road



Covering excavated stockpiles by impervious sheeting

Environmental Mitigation Measures for Construction Activities (Cont'd)



Deployment of noise barrier

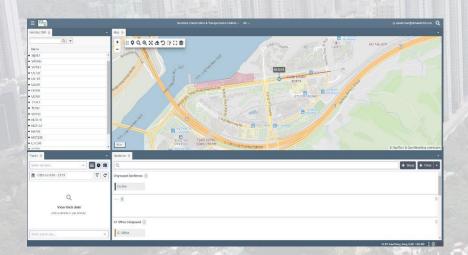


Concrete breaking by quieter method (Rock Splitter)



Wastewater treatment facility

Environmental Mitigation Measures for Construction Activities (Cont'd)



Realtime tracking on the travelling routes of dump trucks



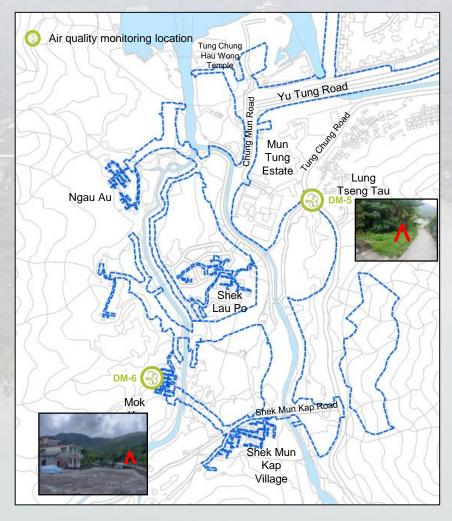
CHIT for waste disposal

EM&A Monitoring – Air Quality

Description	Monitoring Parameter	Monitoring Frequency
Lung Tseng Tau		Three times
Mok Ka	1-hr TSP	every six days
	Lung Tseng Tau	Description Parameter Lung Tseng Tau 1-hr TSP

Monitoring Results from Mar 2024 to Aug 2024

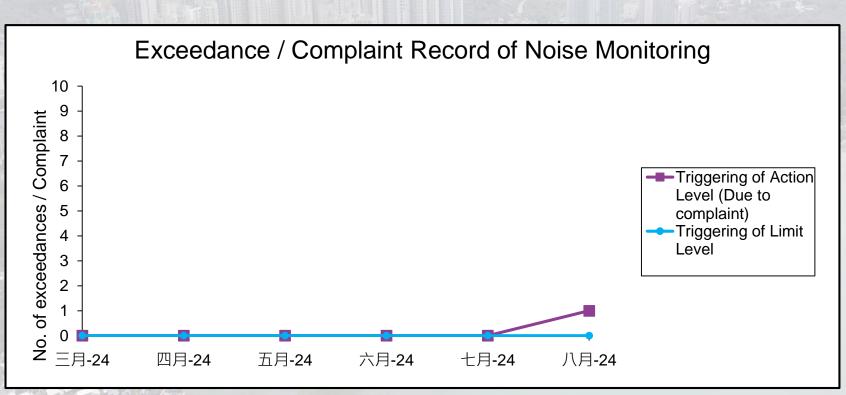
No exceedance was recorded



EM&A Monitoring – Noise Noise monitoring location 000 Tung Chung Hau Monitoring Monitoring Wong ID Description **Parameter** Frequency Yu Tung Road Tung Chung Road Village house in NMS-CA-5 Ma Wan Chung Mind Mi Village house in NMS-CA-6 (**þ**0 NMS-CA-Shek Mun Kap A-weighted Tung Lung Tseng Estate Tau Ngau A YMCA of Hong Kong equivalent NMS-CA-7 Once per week Christian College Tau NMS-CAcontinuous sound (h) NMS-CA-Caritas Charles Vath pressure level L_{ea} NMS-CA-8 8 College (Roof Floor) Hong Chi Shiu Pong NMS-CA-9 Morninghope School (Roof Floor) Shek Lau Po Mok Shek Mun Kap Road Ka NMS-CAd|b NMS-CA-6 hek Mun Kap Village Ma Wan Chung

EM&A Monitoring – Noise

Statistics of Exceedance from Mar 2024 to Aug 2024



1. Exceedance as recorded in the reporting period was due to the receipt of noise complaint.

2. No measurement exceedance in noise was recorded.

3. The implementation of environmental mitigation measures by Contractor was in general satisfactory and no deficiencies in practices were observed.

EM&A Monitoring – Water Quality

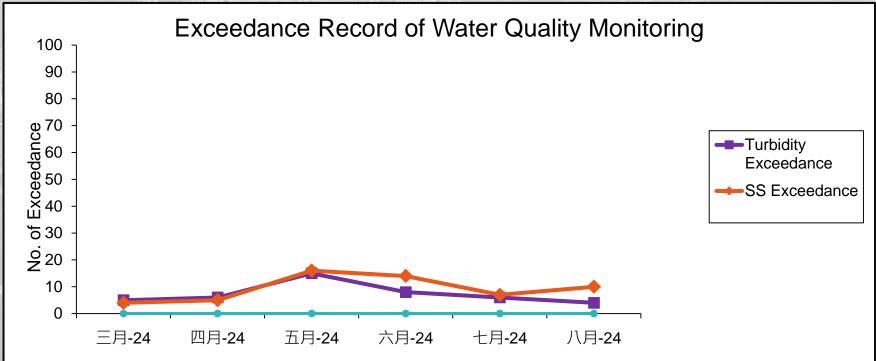
ID	Description	Monitoring Parameter	Monitoring Frequency
TCW-WQM-1	Downstream of Tung Chung Stream		
TCW-WQM-2	Middle of Tung Chung Stream (West)	• Temperatur	
TCW-WQM-3A	Middle of Tung Chung Stream (East)	eSalinityConductivity	3 days per week
TCW-WQM-4	Upstream of Tung Chung Stream (West)	 pH 3 Dissolved Oxygen 	
TCW-WQM-5A	Upstream of Tung Chung Stream (East)	TurbiditySuspended	
TCW-WQM-6	Downstream of Tung Chung Stream (West)	Solids	
TCW-WQM-7	Downstream of Tung Chung Stream (East)		

Stream water quality monitoring location (River Mouth)
 Stream water quality monitoring location (West Tributary)
 Stream water quality monitoring location (East Tributary)



EM&A Monitoring – Water Quality

Statistics of Exceedance from Mar 2024 to Aug 2024



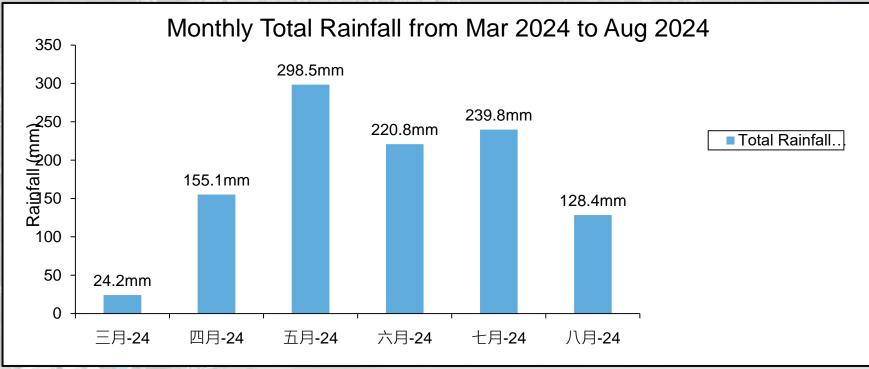
1. Impact monitoring is carried out at seven stations for three times per week.

2. Exceedances as recorded in the reporting period were mainly due to the inclement weather.

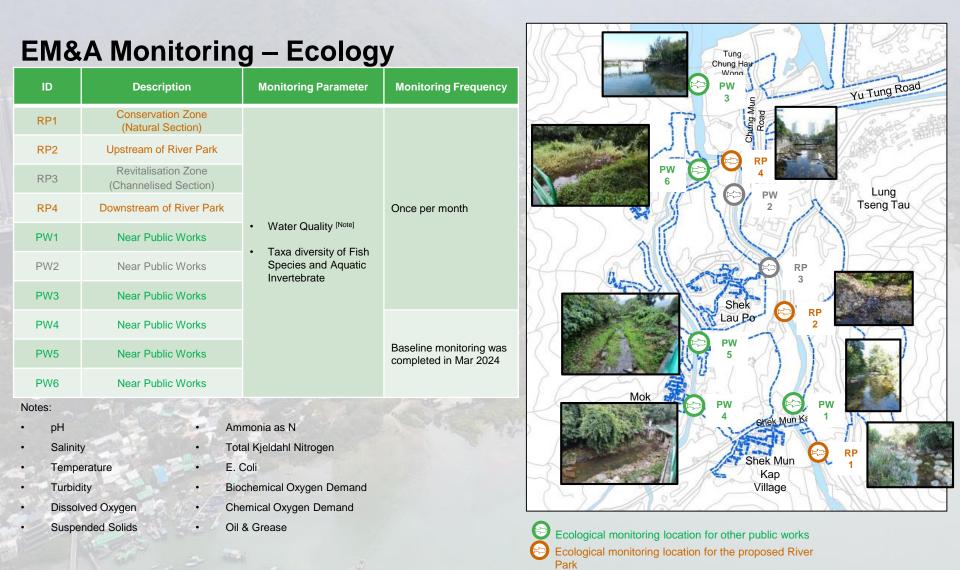
3. The implementation of environmental mitigation measures by Contractor was in general satisfactory and no deficiencies in practices were observed.

EM&A Monitoring – Water Quality

Statistics of Exceedance from Mar 2024 to Aug 2024



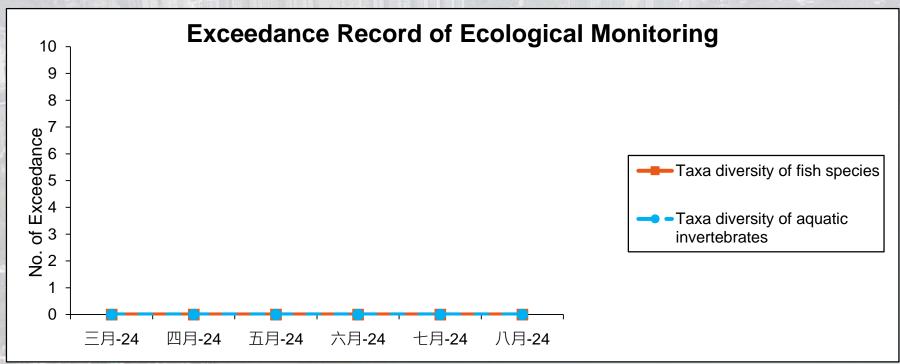
Note: Monthly rainfall data was extracted from the manned weather station located at Hong Kong International Airport by Hong Kong Observatory.



Ecological Monitoring at the monitoring station RP3 and PW2 were suspended since March 2023 with the commencement of temporary river diversion in Tung Chung Stream.

EM&A Monitoring – Ecology

Statistics of Exceedance from Mar 2024 to Aug 2024



No Exceedance

Complaint Received

Month	Air	Noise	Water	Others (Waste, Ecology, Landscape and Visual)
Mar-2024	0	0	1	0
Apr-2024	1	0	1	0
May-2024	0	0	0	0
Jun-2024	3	0	0	0
Jul-2024	0	0	0	0
Aug-2024	0	1	1	0
Sep-2024	0	1	0	0
Nature of Complaints	 Construction dust from construction sites near YHKCC and Yu Tung Road 	 Chung Yan Road construction site Site Office of TCW 	 Suspected discharge at Tung Chung Stream Muddy water at Shek Mun Kap Road 	

M MOTT MACDONALD



土木工程拓展署 Civil Engineering and Development Department



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71

THANK YOU