

# Tung Chung New Town Extension



7<sup>th</sup> PLG Meeting  
Date : 23 August 2022



土木工程拓展署  
CIVIL ENGINEERING AND  
DEVELOPMENT DEPARTMENT

可持續大嶼辦事處  
SUSTAINABLE LANTAU OFFICE

# 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

# Matters Arising from Last Meeting

Para. 4.3.2:

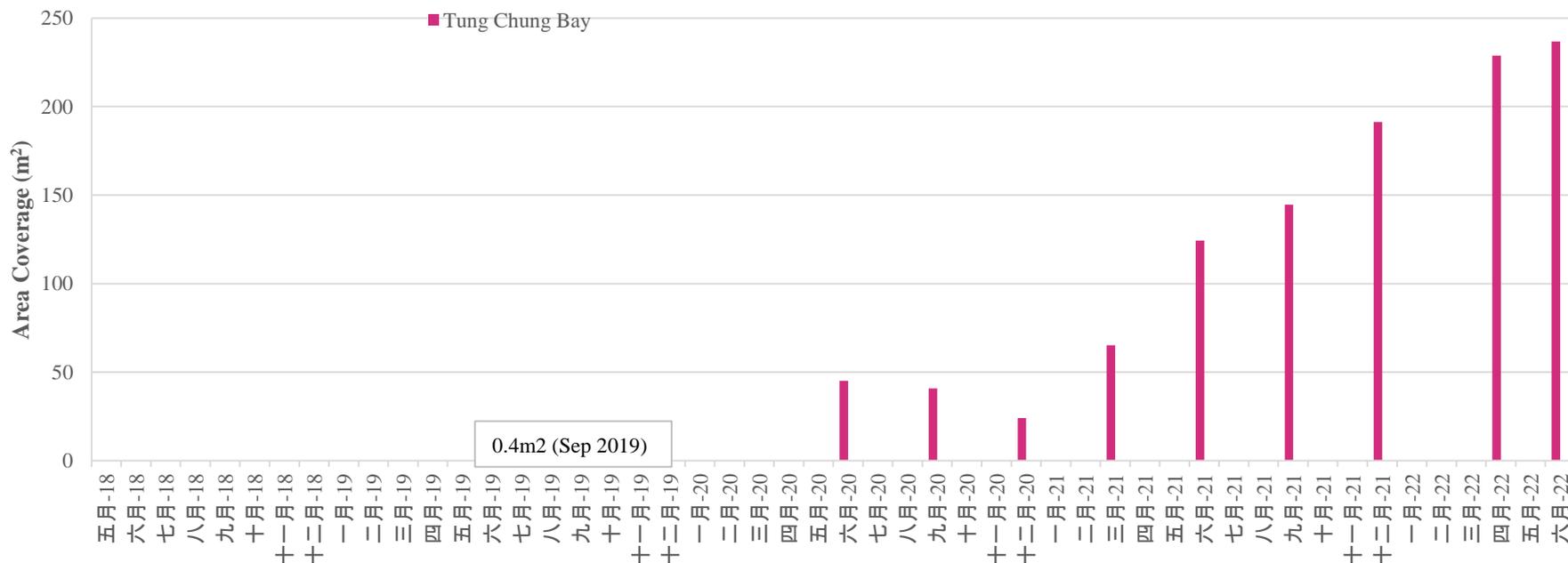
## Seagrass bed ecological monitoring data

- *Ecological monitoring for the seagrass bed data would be provided to the members for reference.*

# Seagrass

- No seagrass was recorded at all monitoring locations during the TCE baseline monitoring (2018)
- Throughout TCE ecological monitoring, seagrass was only observed at TCB3 (but not at other monitoring stations).

**Seagrass Area Coverage Recorded at Tung Chung Bay**



# Seagrass



Seagrass patch  
observed in Tung Chung  
Bay (*Halophila ovalis*)

# Seagrass

- Refer to HZMB report (Jun 2019) that seagrass bed could disappear for certain period of time then recolonize.
- Seagrass is important to coastal/marine ecosystem. It helps to stabilize the coastlines and sediments, and serve as shelters, feeding grounds and food sources for a variety of animals such as fishes, crabs, gastropods and horseshoe crabs.
- Hence, the occurrence and disappearance of seagrass has no direct linkage to TCNTE project.

June 2014



December 2014 (no seagrass)



September 2015



June 2017



September 2017-March 2018 (no seagrass)



September 2018



**Figure 3.12.** Comparison of pictures taken in different sampling months shows the successive disappearance and recolonization of seagrass beds. The picture of December 2018 was lacking due to night-dawn survey time.

# Matters Arising from Last Meeting

Para. 4.6.2:

## Complaint investigation report suggestion

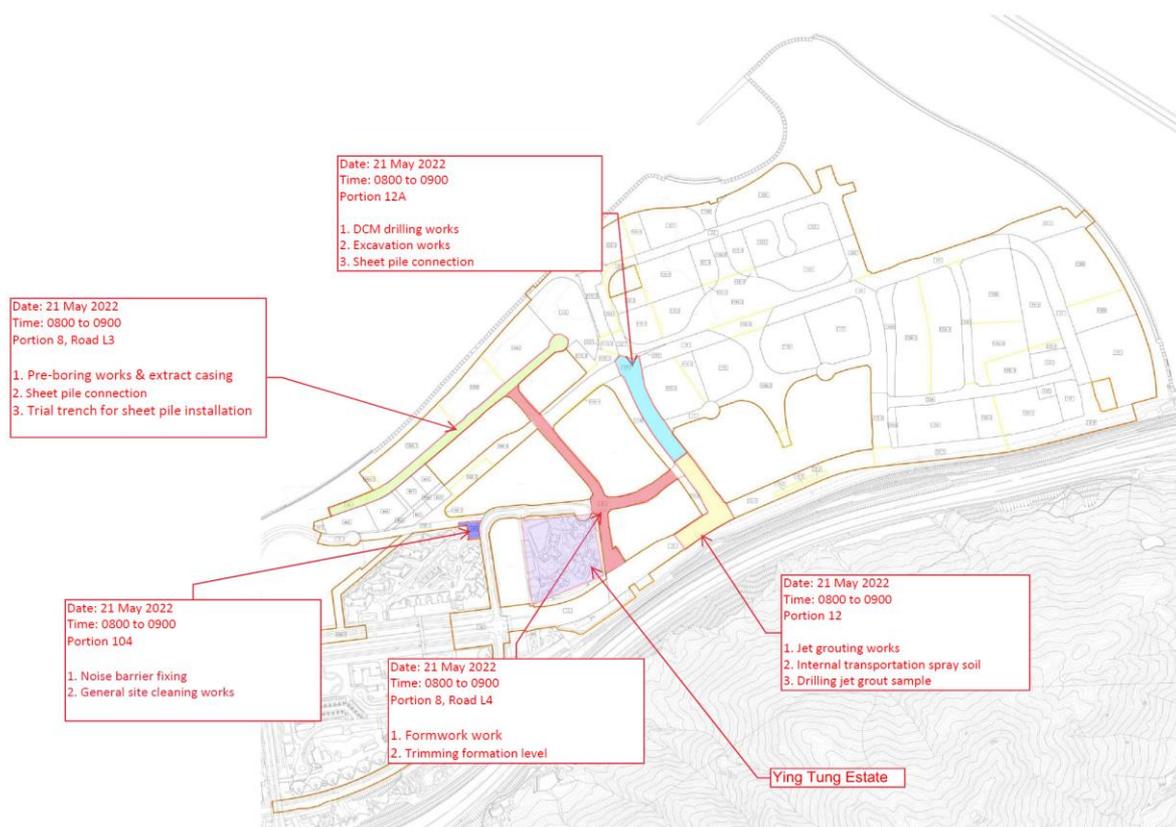
- *A member suggested and ET/E agreed making use of the records of the log-book of construction activities in the complaint investigation and subsequent explanation to the public*

# Complaint investigation

- Site diary / construction activities were reviewed after receipt of complaints
- Construction activities and locations clearly presented in the investigation reports

## Example

Work Activities and Location Plan for Complaint Case: N09/MP/00009672-22

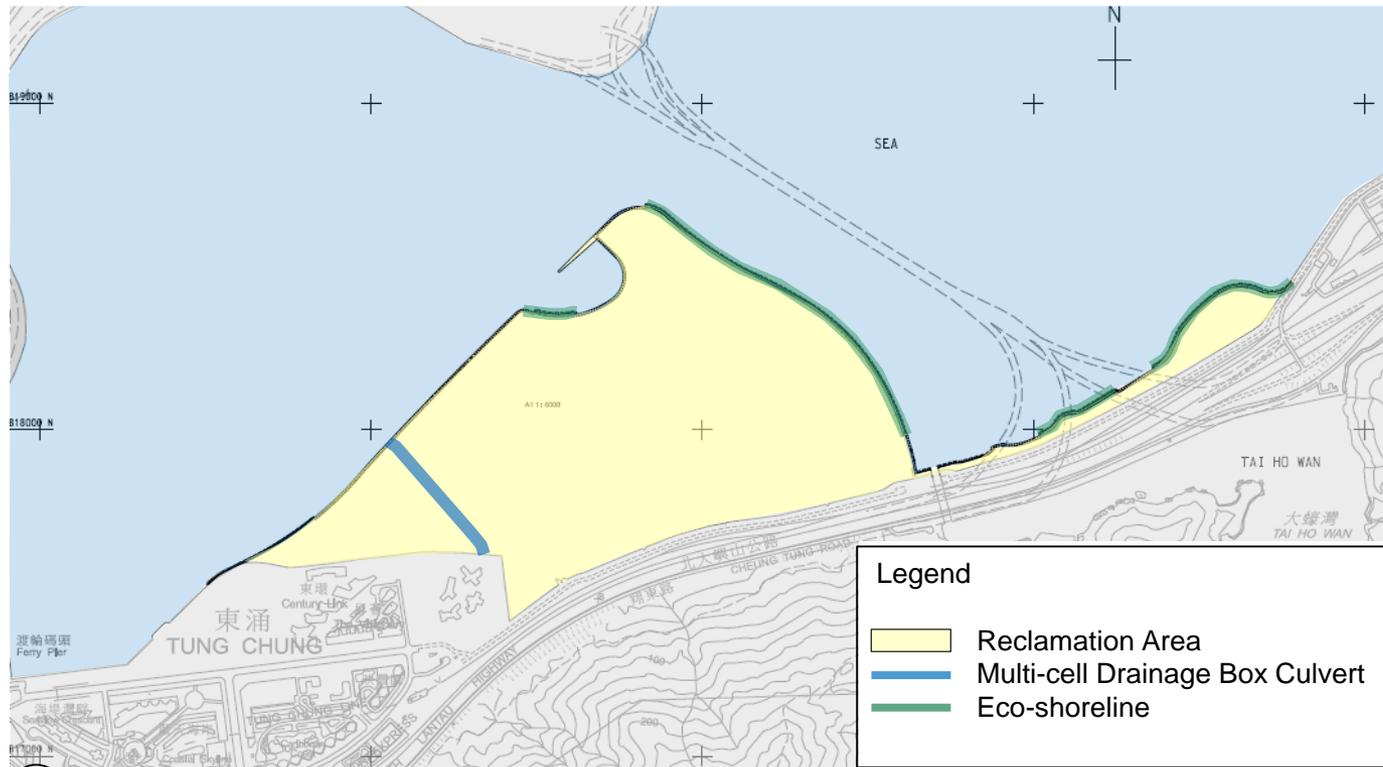


- TCE Case Logbook reference (C3/20220527/017)
- EPD (ref: N09/MP/00009672-22)
- Complaint on percussive piling (PP) noise at 8:00am referred by EPD
- Site diary log (C1, C2 and C3) and CNP regulation requirement confirmed no PP during the complaint time
- Construction activities clearly recorded provided information which suggested the noise could be contributed by other sources (Other HD Projects etc.)

## **2. Tung Chung East**

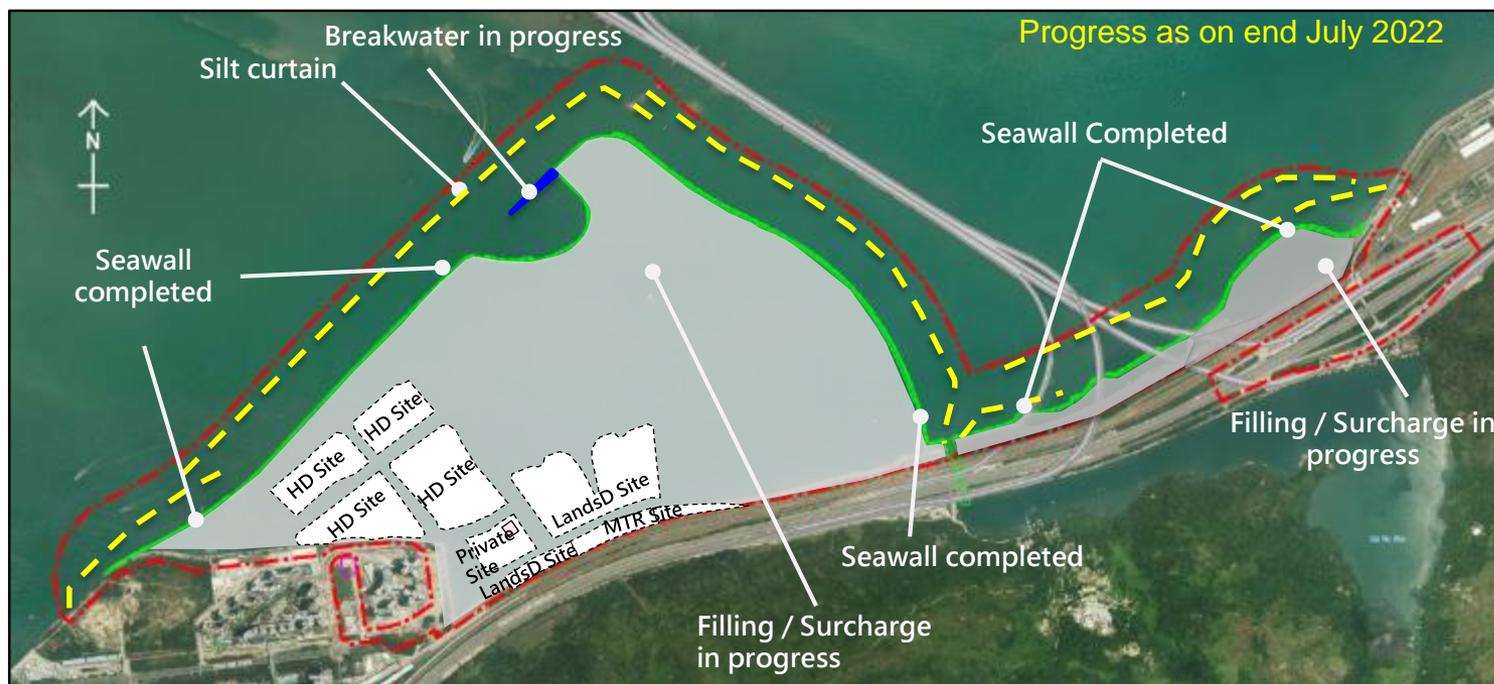
### **b. Overview and Progress**

# Tung Chung East Reclamation



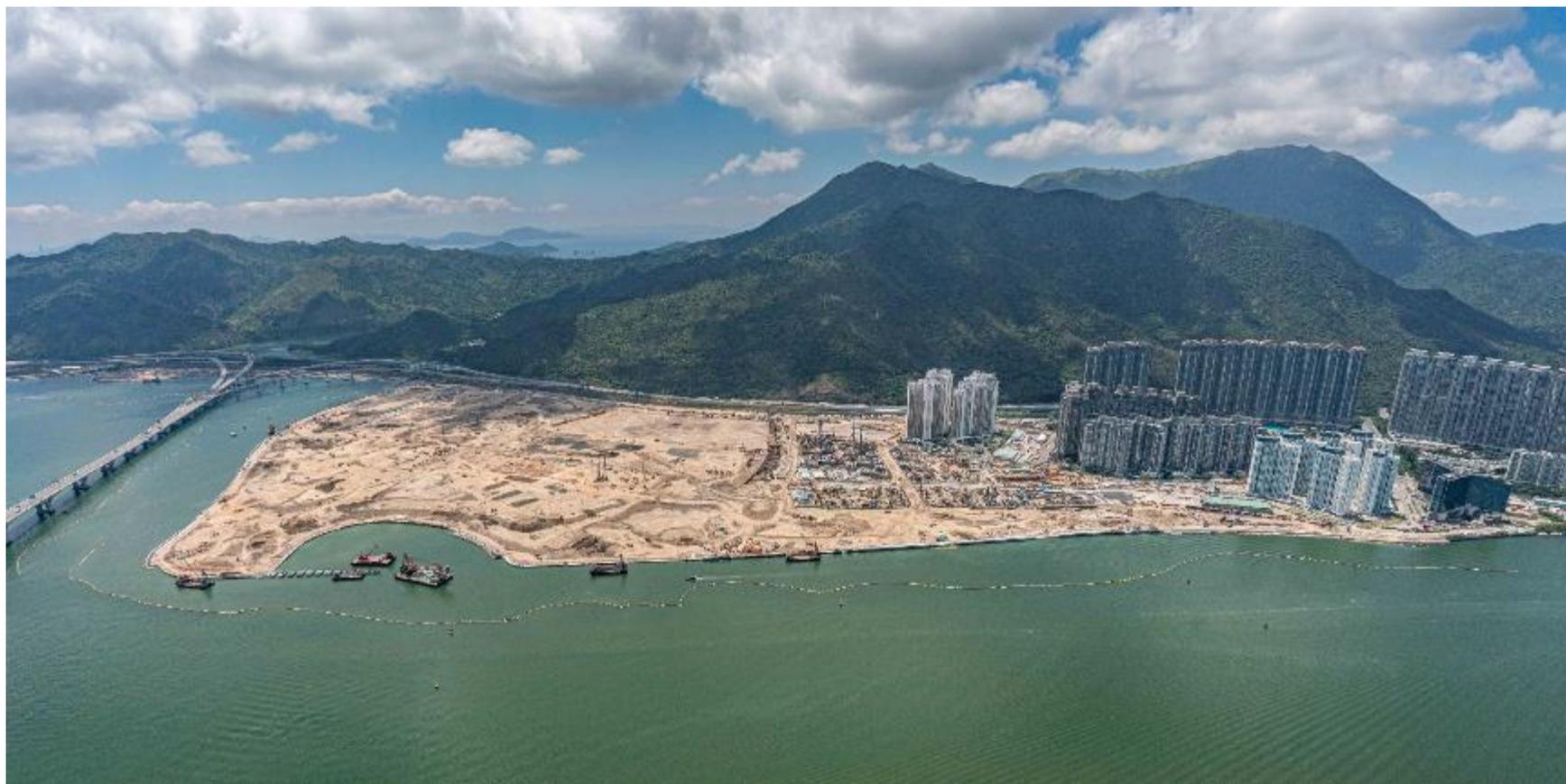
- ① 130 hectares land reclamation by non-dredged method
- ② Construction of 4.9 km seawalls partly with eco-shorelines
- ③ Construction of 470m extension of multi-cell drainage box culvert

# Current Progress



# Aerial Photo

Photo taken in July 2022



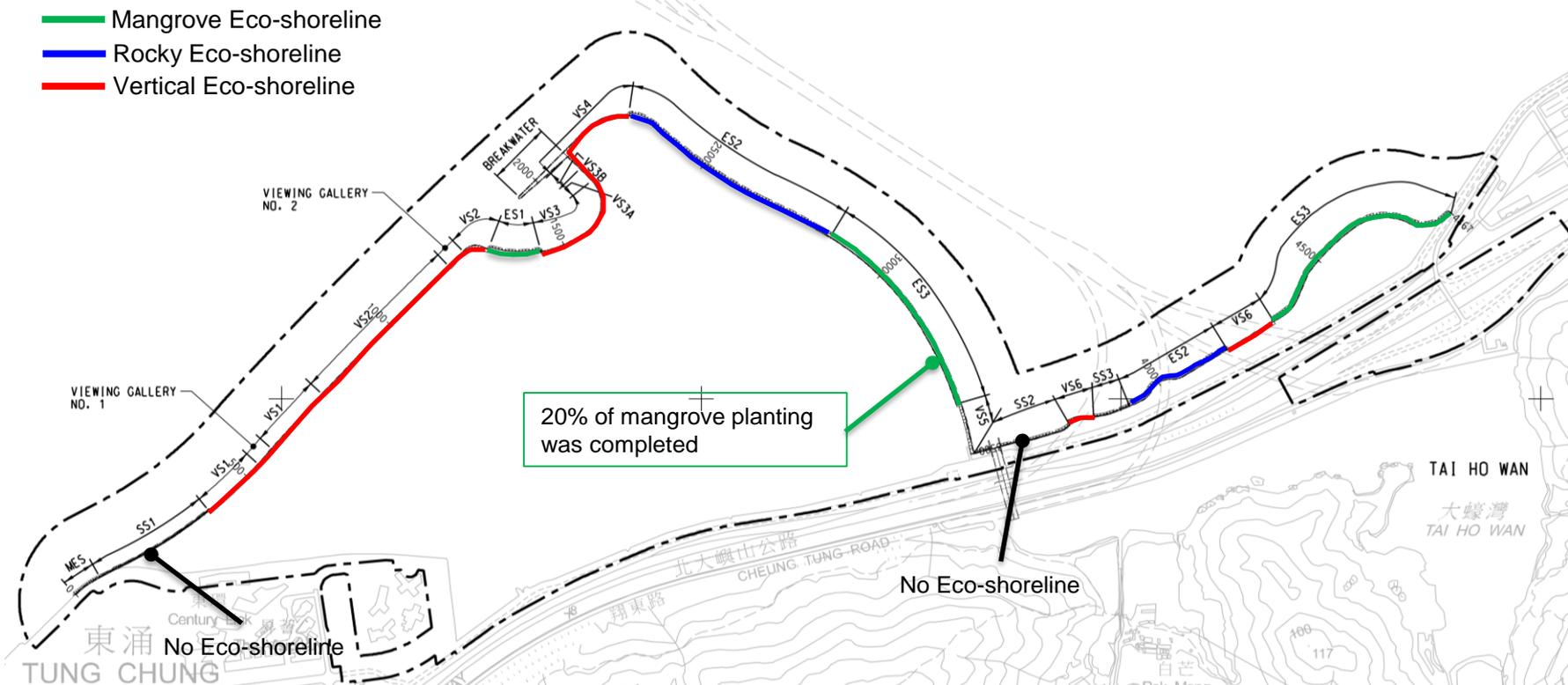
# Aerial Photo

Photo taken in July 2022

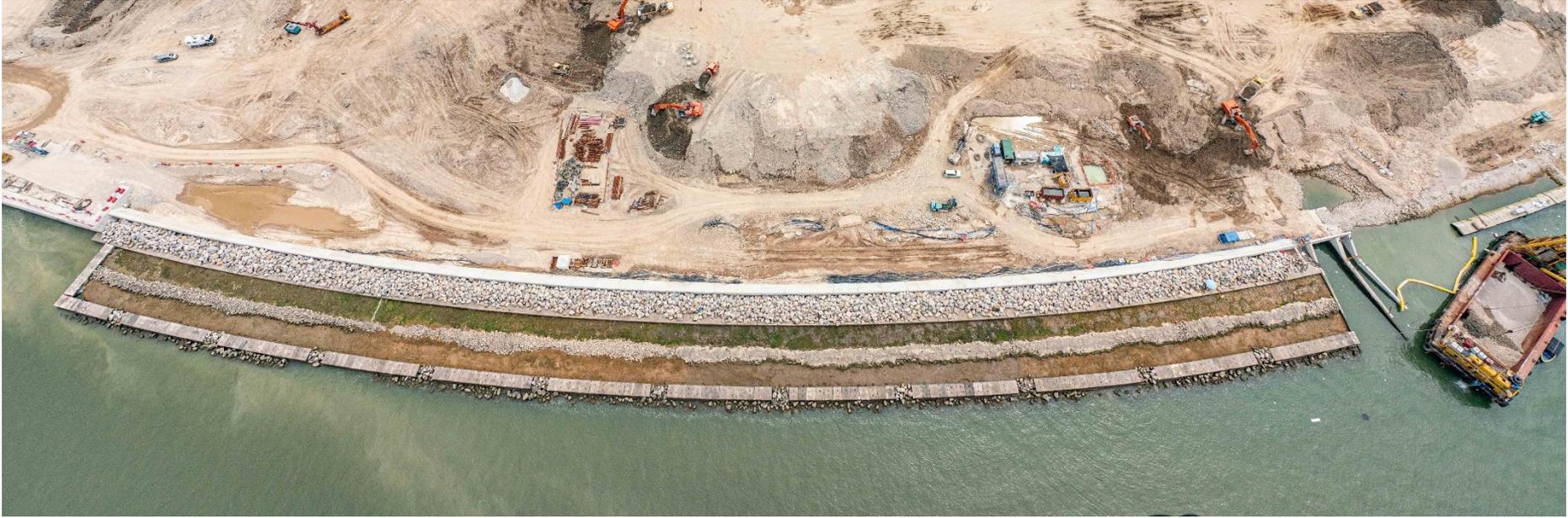


# Eco-shoreline

Type of Eco-shoreline	Length (km)	Status
Mangrove Eco-shoreline	1.2	20% completed
Rocky Eco-shoreline	0.8	Precasting in progress
Vertical Eco-shoreline	1.8	100% completed



# Mangrove Eco-Shoreline



## Mangrove Species

水筆仔 *Kandelia obovate*

白骨壤 *Avicennia marina*

木欖 *Bruguiera gymnorhiza*

欖李 *Lumnitzera racemosa*

桐花樹/蠟燭果 *Aegiceras corniculatum*

老鼠簕 *Acanthus ilicifolius*



2022年8月16日 下午3:58:46  
新界大嶼山



2022年8月16日 下午3:53:03  
新界大嶼山

General View of Mangrove Eco-shoreline

# Vertical Eco-shoreline



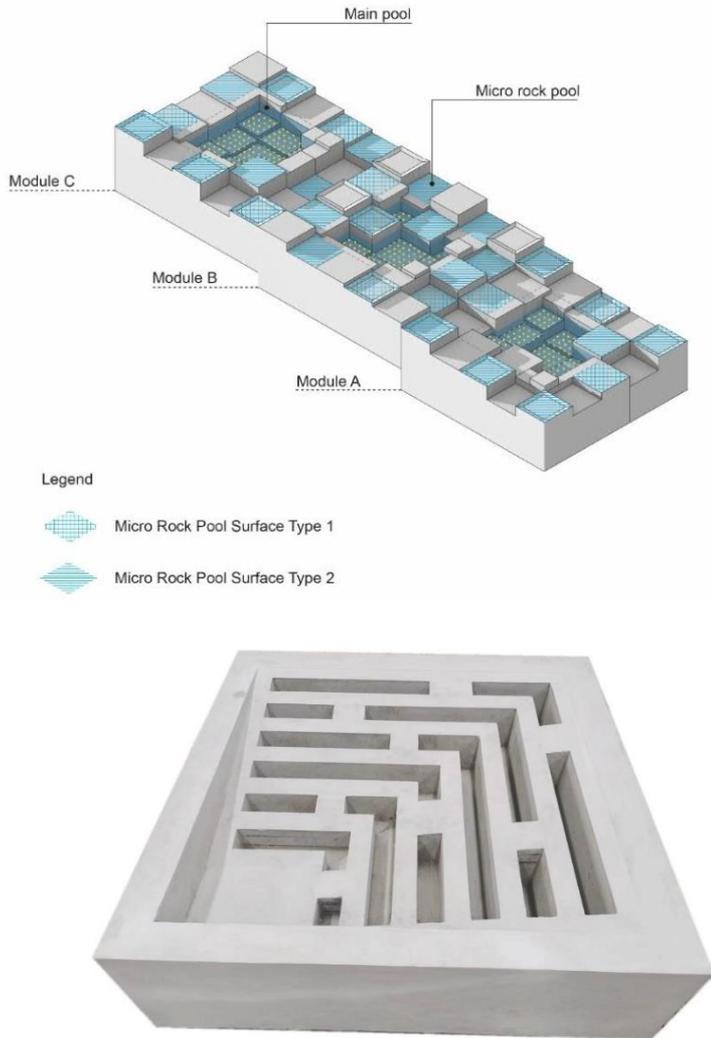
Thin film of algae observed

General View of Vertical Eco-shoreline



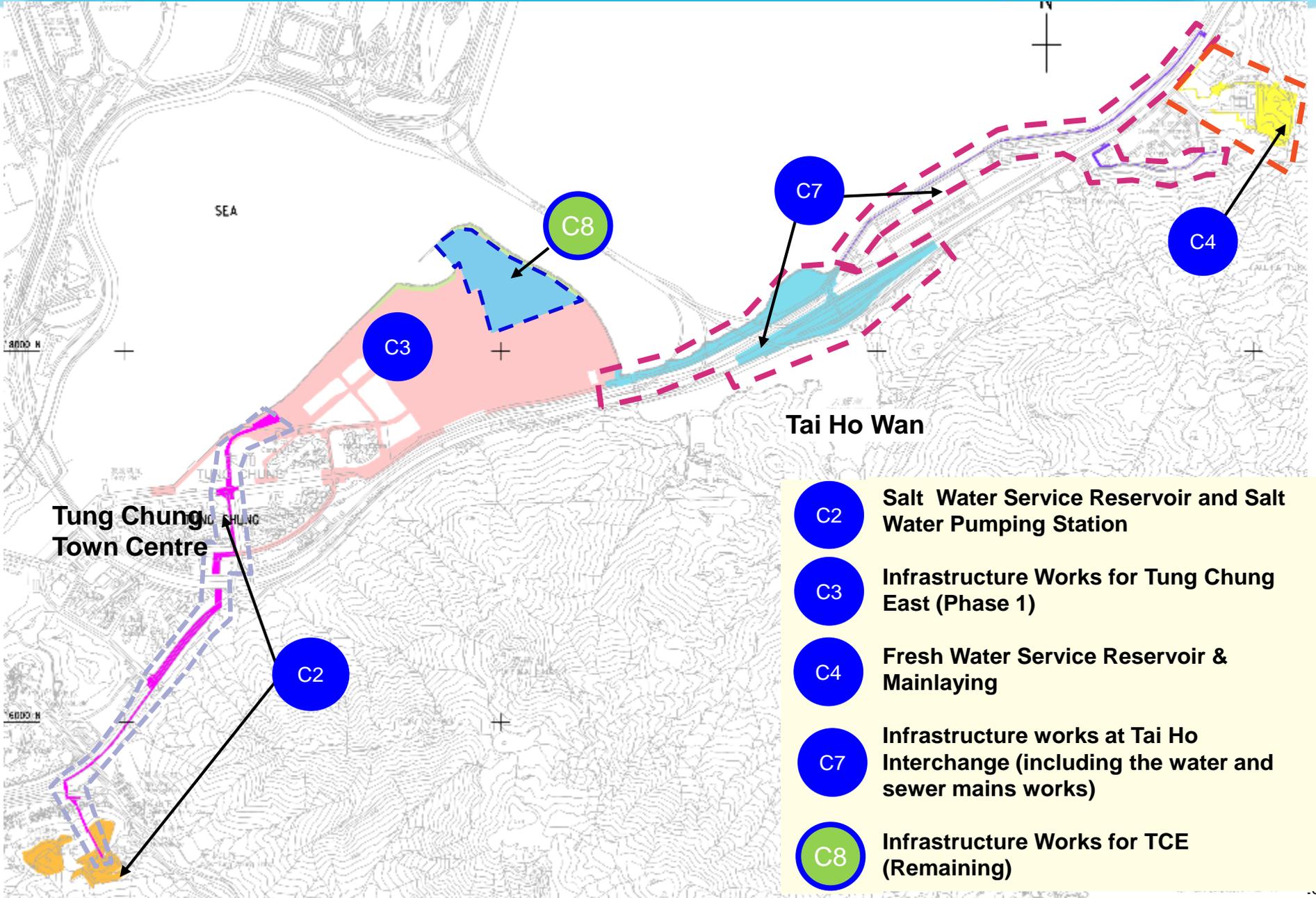
Creatures observed

# Rocky Eco-shoreline

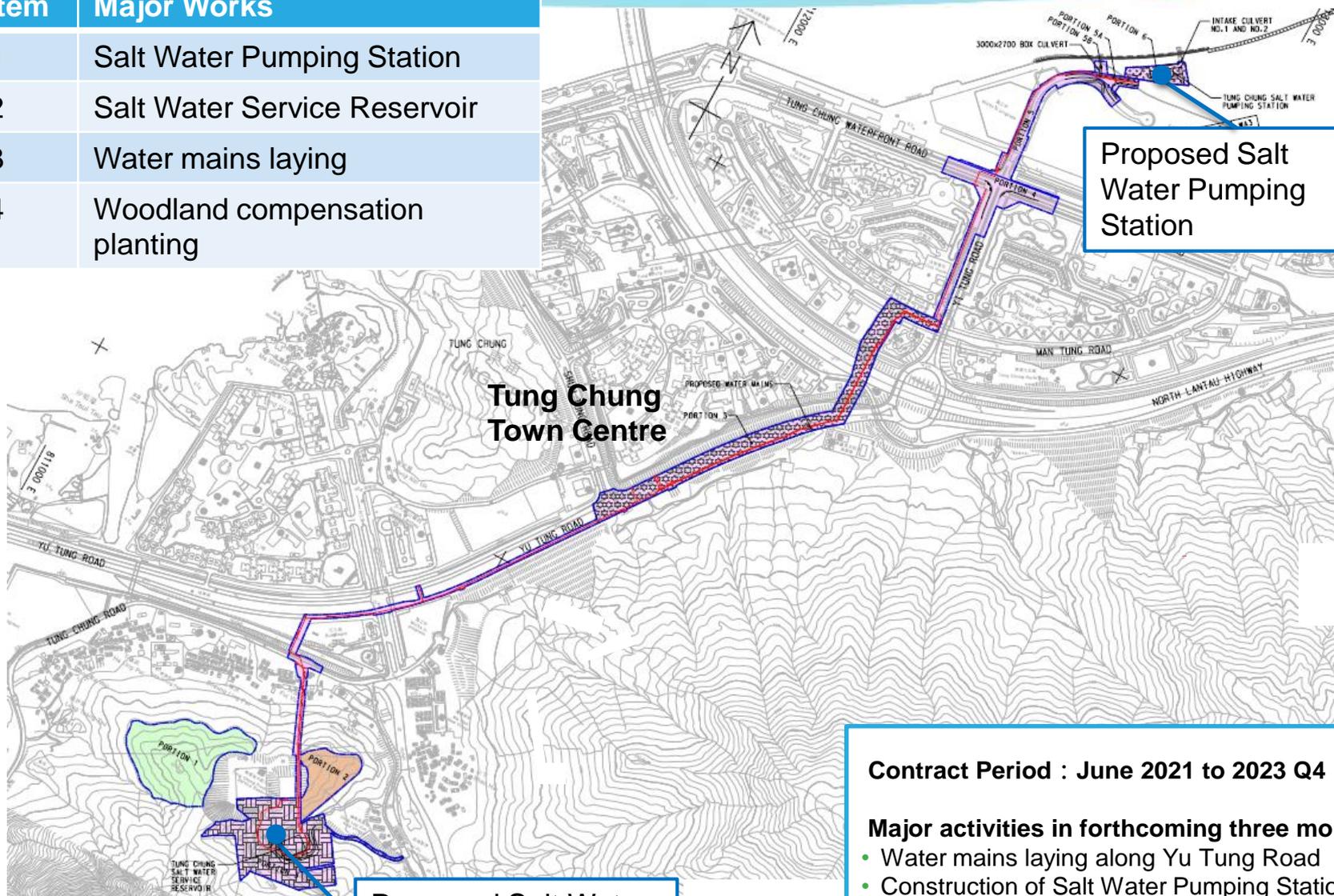


- Precasting of bio-concrete block in progress

# Tung Chung East Infrastructure



Item	Major Works
1	Salt Water Pumping Station
2	Salt Water Service Reservoir
3	Water mains laying
4	Woodland compensation planting



Proposed Salt Water Pumping Station

Proposed Salt Water Service Reservoir

**Contract Period : June 2021 to 2023 Q4**

**Major activities in forthcoming three months:-**

- Water mains laying along Yu Tung Road
- Construction of Salt Water Pumping Station
- Site formation for service reservoir
- Woodland compensation planting

# Salt Water Pumping Station (SWPS)

**Construction Period**  
2021 Q4 to 2023 Q4

## Related Works

- ELS works
- R.C. structures



ELS Works for Pumping Station in progress



Salt Water Pumping  
Station

# Salt Water Service Reservoir

## Construction Period

2022 Q2 to 2023 Q4

## Related Works

- Site Formation
- RC structures



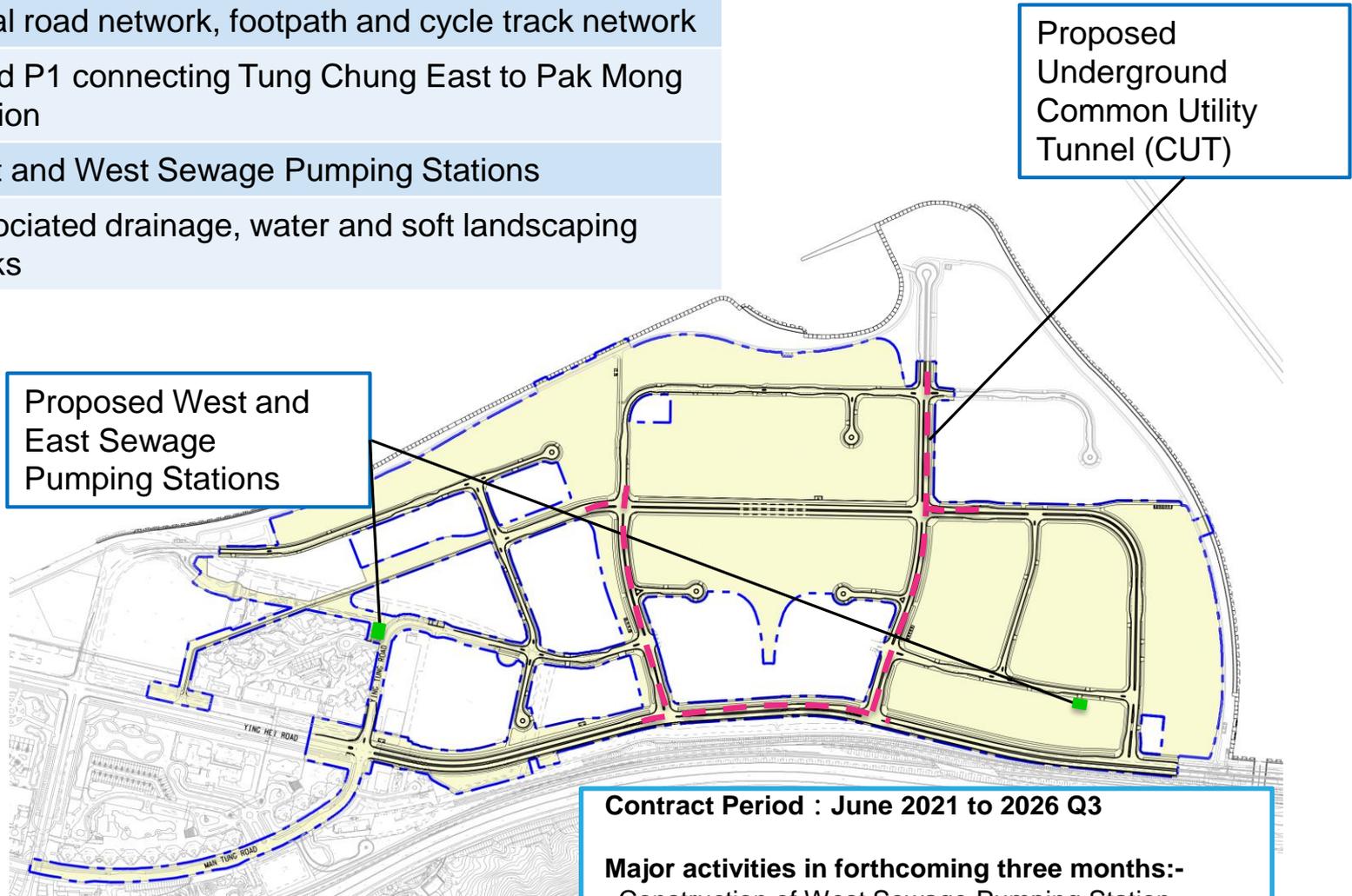
Legend



Salt Water Service Reservoir

Salt Water Service Reservoir

Item	Major Works
1	Local road network, footpath and cycle track network
2	Road P1 connecting Tung Chung East to Pak Mong section
3	East and West Sewage Pumping Stations
4	Associated drainage, water and soft landscaping works



Proposed  
Underground  
Common Utility  
Tunnel (CUT)

Proposed West and  
East Sewage  
Pumping Stations

**Contract Period : June 2021 to 2026 Q3**

**Major activities in forthcoming three months:-**

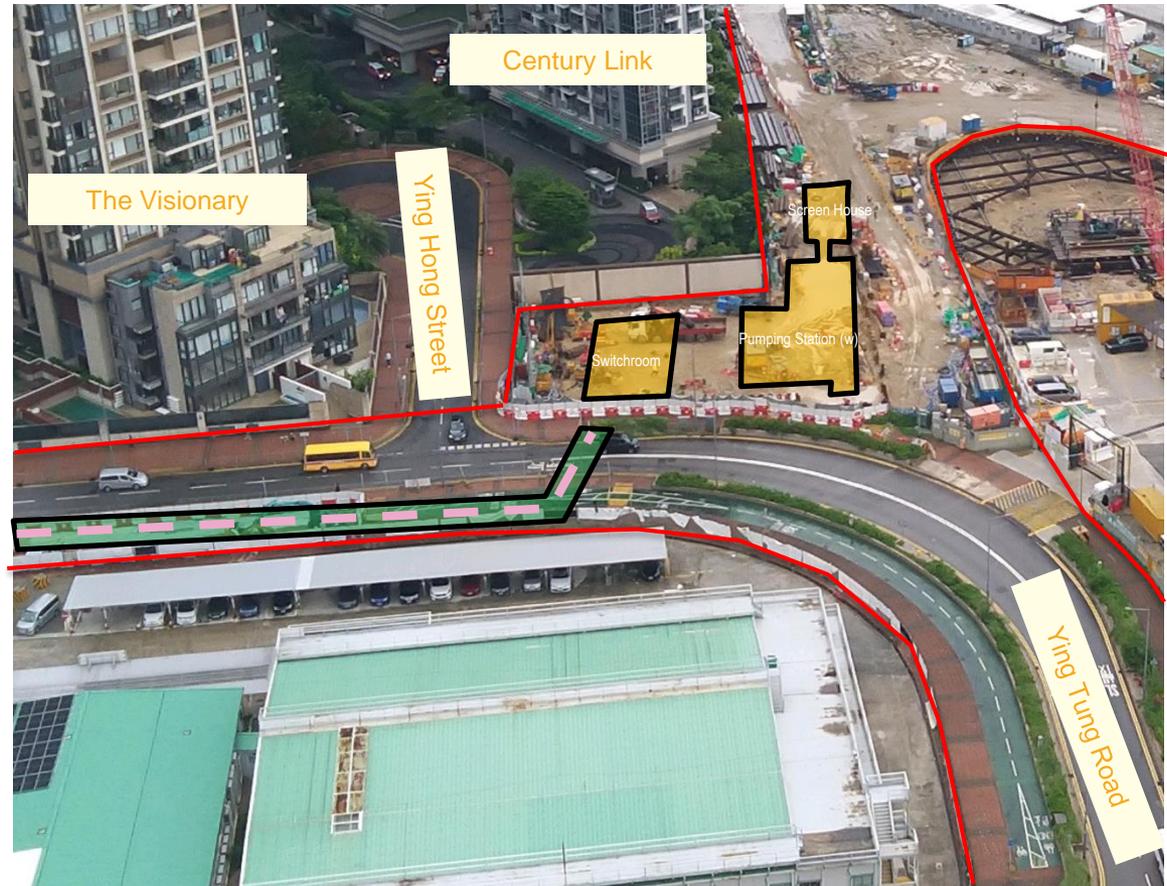
- Construction of West Sewage Pumping Station
- Construction of Common Utility Tunnel No. 1 and No. 3
- Pipe laying along Man Tung Road, Ying Tung Road, Road L3, Road L4 and Road 5

# West Sewage Pumping Station (WSPS)

**Construction Period**  
2021 Q3 to 2023 Q3

## Related Works

- ELS works
- R.C. structures



Legend:



NL/2020/03 Site Area



Phased TTA Area



Sewage Pipe Installation

# Common Utility Tunnel (CUT)

CUT Completion Date  
2026 Q3

## Related Works

- ELS works
- Underground R.C. structures



Legend:



Common Utility Tunnel (CUT)

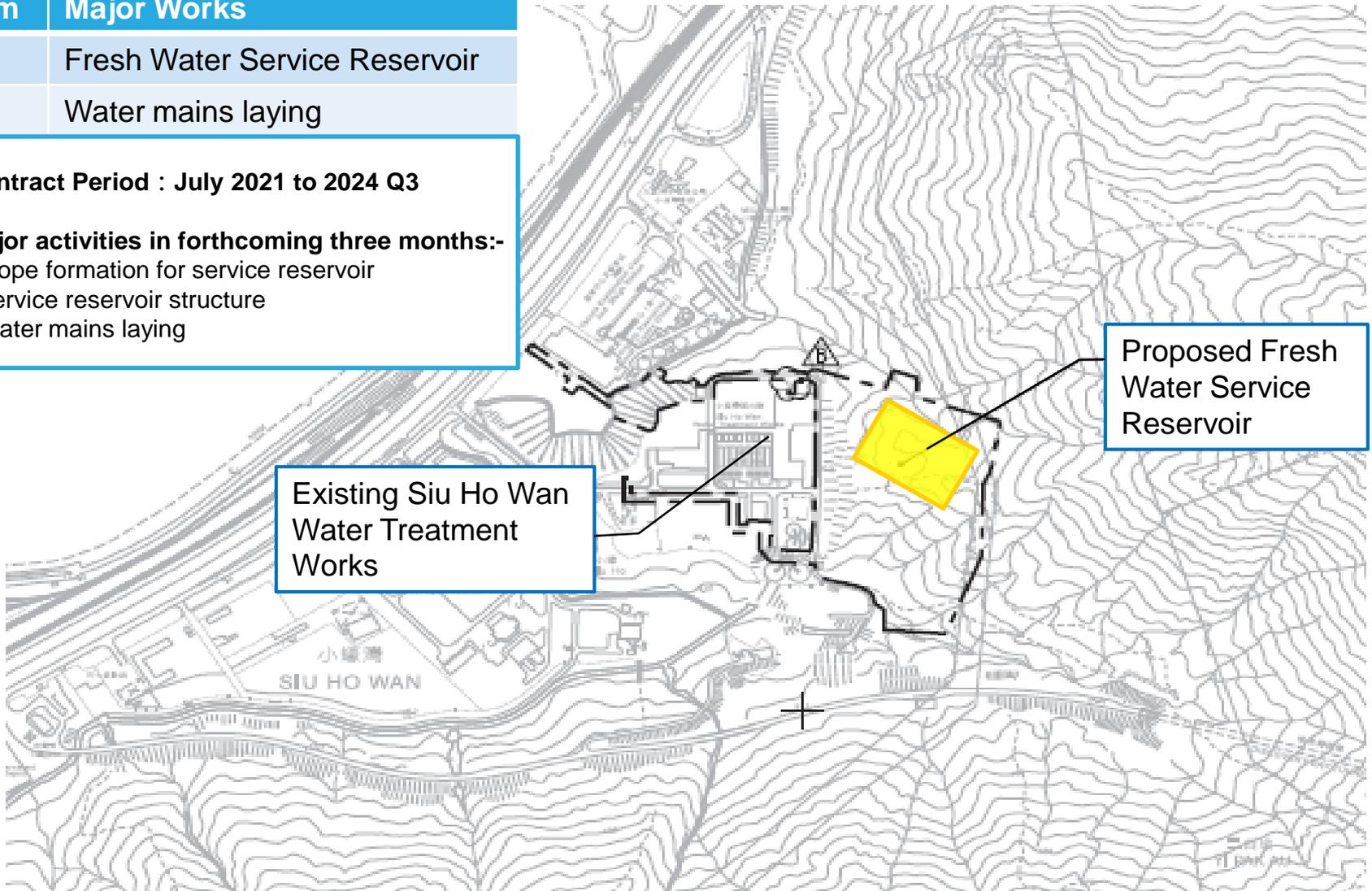


Item	Major Works
1	Fresh Water Service Reservoir
2	Water mains laying

**Contract Period : July 2021 to 2024 Q3**

**Major activities in forthcoming three months:-**

- Slope formation for service reservoir
- Service reservoir structure
- Water mains laying



# Fresh Water Service Reservoir

**Construction Period**  
2022 Q2 to 2024 Q3

## Related Works

- Site formation
- Piling works
- R.C. structures



Legend



Fresh Water Service Reservoir



Construction of base slab of service reservoir



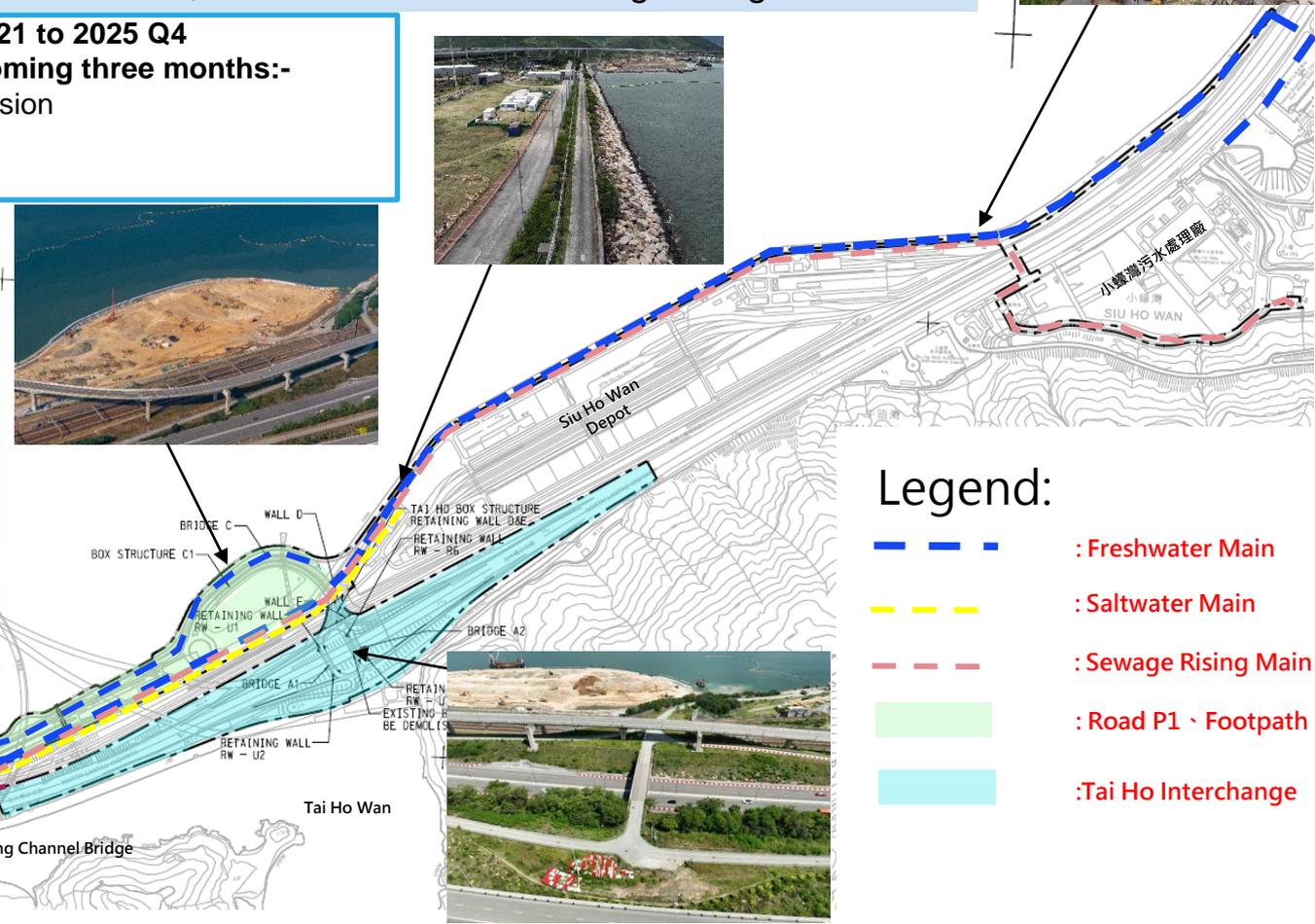
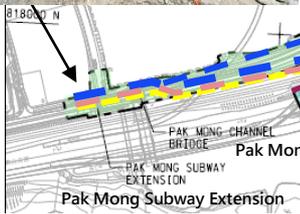
Laying of Watermains

Item	Major Works
1	Construction of Tai Ho Interchange
2	Construction of a section of dual two-lane road between Tung Chung East and Tai Ho Interchange
3	Laying of fresh watermains, salt watermains and sewage rising mains



**Contract Period : Oct 2021 to 2025 Q4**  
**Major activities in forthcoming three months:-**

- Pak Mong Subway Extension
- Main-Laying works
- Ground Investigation



**Legend:**

- - - : Freshwater Main
- - - : Saltwater Main
- - - : Sewage Rising Main
- : Road P1 · Footpath · Cycle Track
- : Tai Ho Interchange

# Pak Mong Subway Extension

**Construction Period**  
2022 Q2 to 2024 Q3

## Related Works

- Demolition works
- R.C. structure & Steel frame roof



Legend:

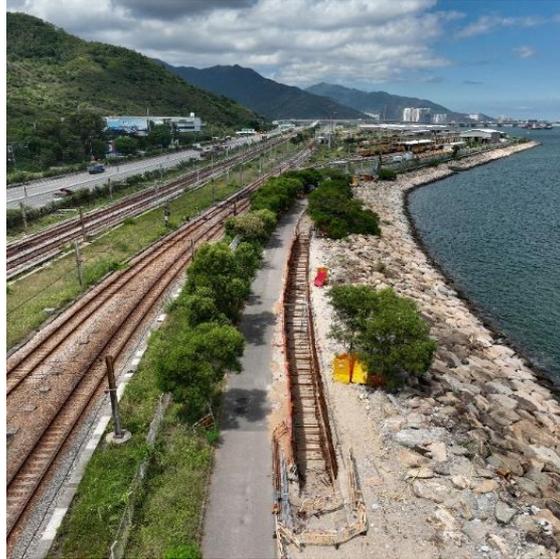
-  NL/2020/07 Site Area
-  Phase 1 Demolition works
-  Pedestrian access

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

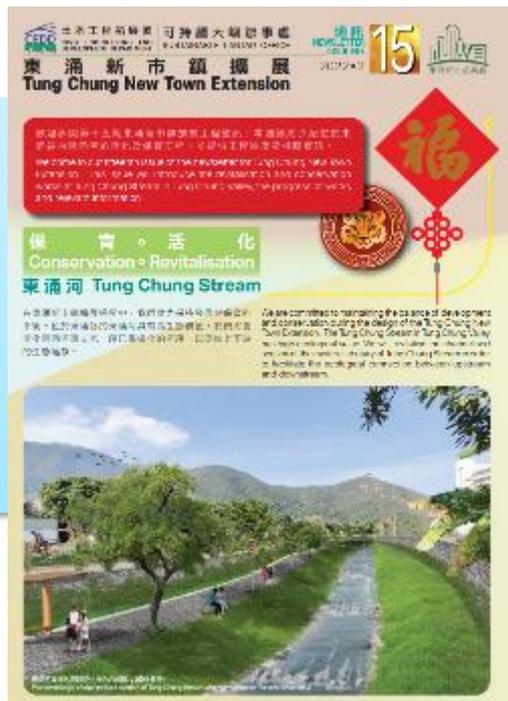
**Construction Period**  
2021 Q3 to 2024 Q3

## Related Works

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



# Newsletter Issues



To take note of  
construction  
progress

## 2. Tung Chung East

### c) Environmental Monitoring and Audit

# Dedicated Website under EP-519/2016



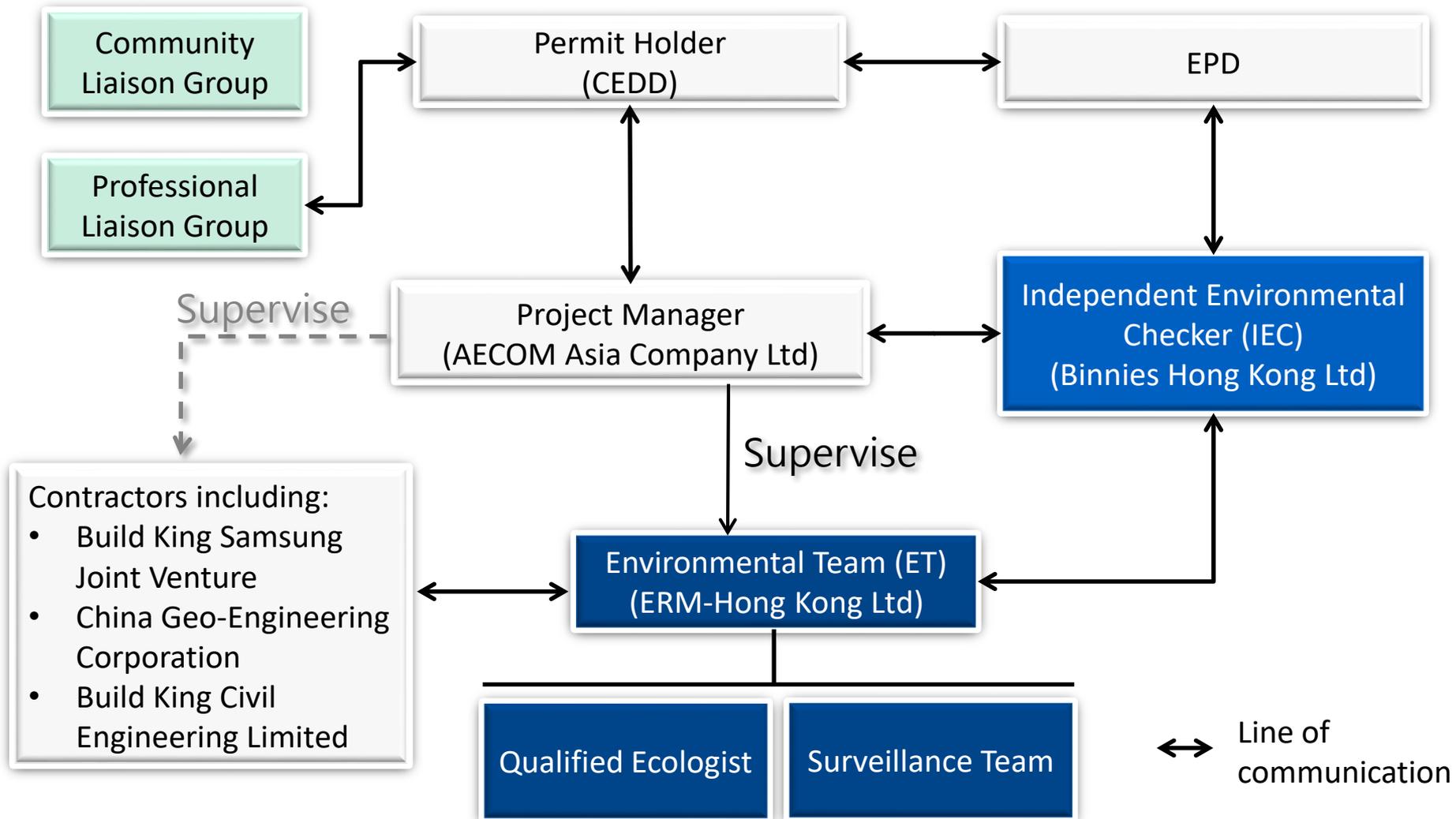
Website: <http://env.tcnte.hk/index-TCE.html>



## 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.

# EM&A Management Organization



# Protection and Mitigation Measures on Construction Activities



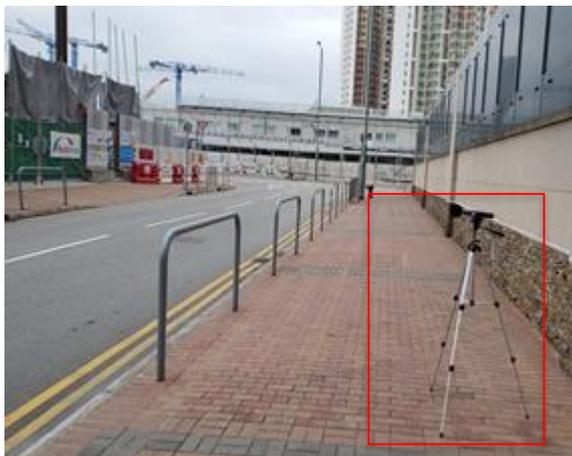
Water spraying by water truck for dust control



Wheel washing bay with high pressure jet



Noise damper



Noise monitoring



Noise mitigation measures on sheet piling works



Noise barrier

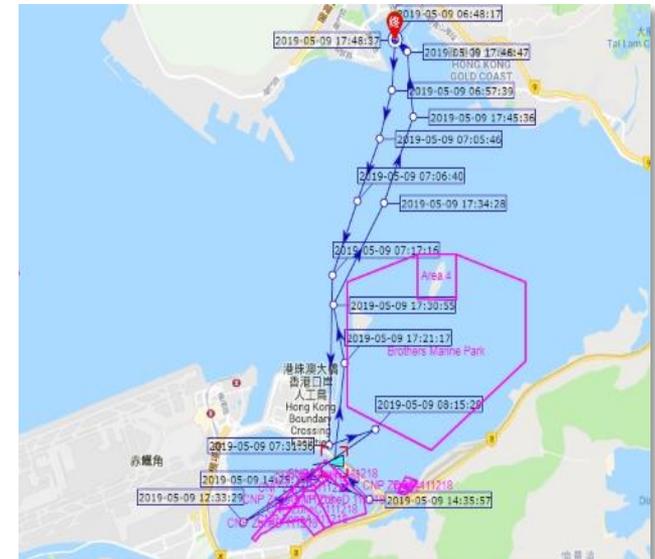
# Protection and Mitigation Measures on Construction Activities



Maintenance of  
perimeter silt curtain



Water quality monitoring



Tracking and Speed control of  
works vessels

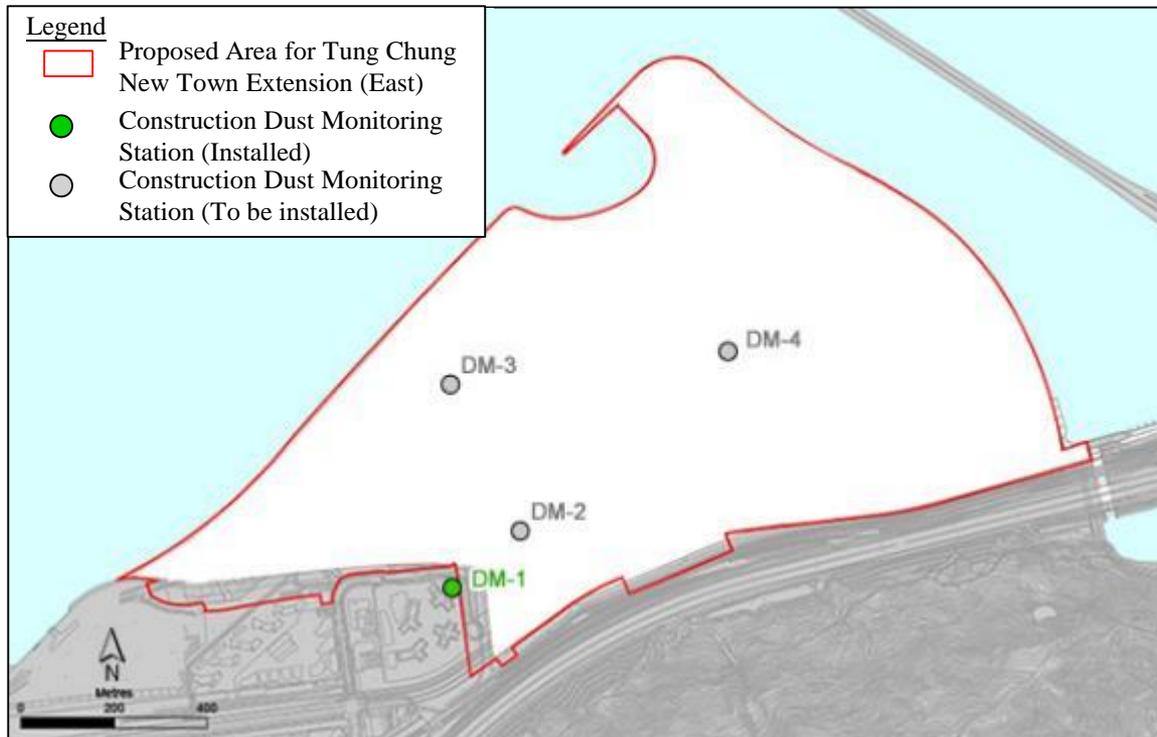


# EM&A Monitoring – Air Quality



## Air Quality Monitoring

**Frequency** Three times every six days  
**Monitoring Parameter** 1-hour Total Suspended Particulate



## Monitoring Results between Jan 2022 and Jul 2022

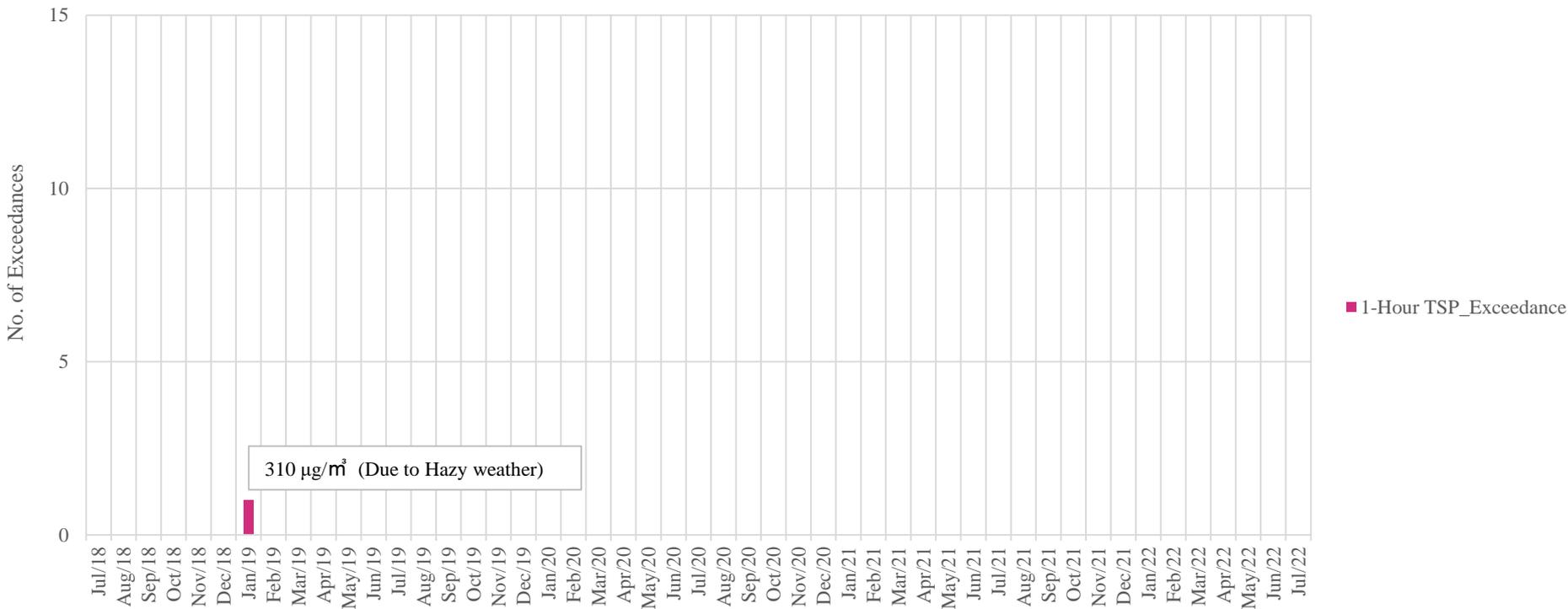
No project-related exceedance was recorded.



*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

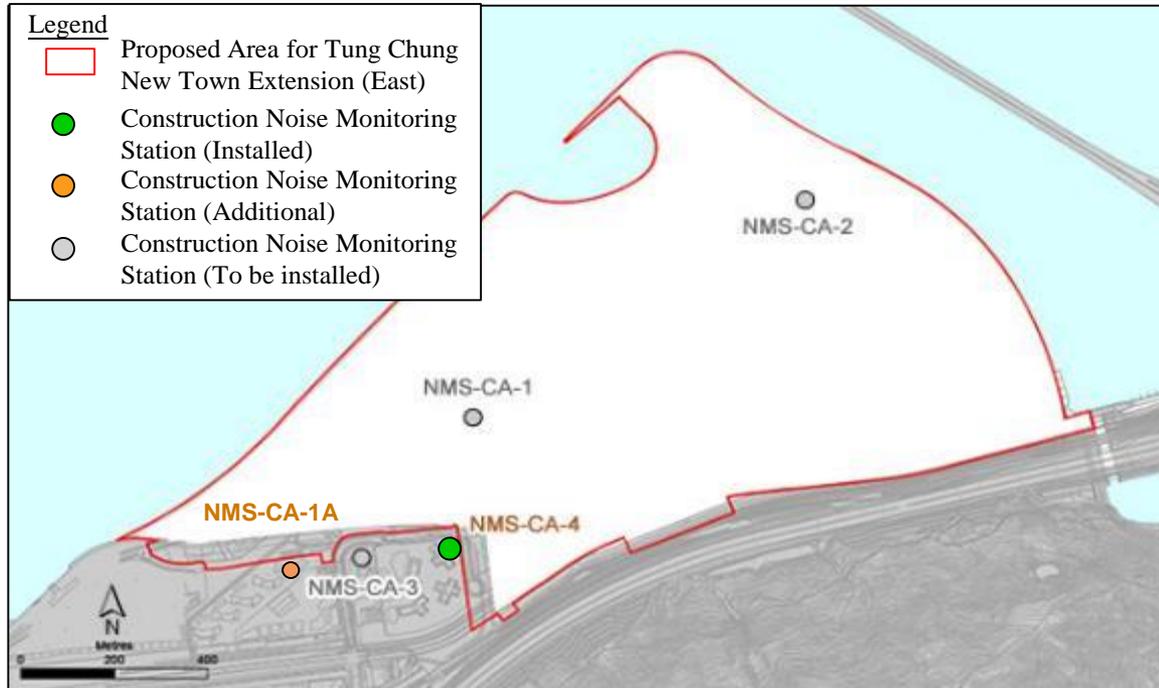


# EM&A Monitoring – Noise



## Noise Monitoring

**Frequency** Once per week  
**Monitoring Parameter**  $L_{eq}$  (30mins)



## Monitoring Results between Jan 2022 and Jul 2022

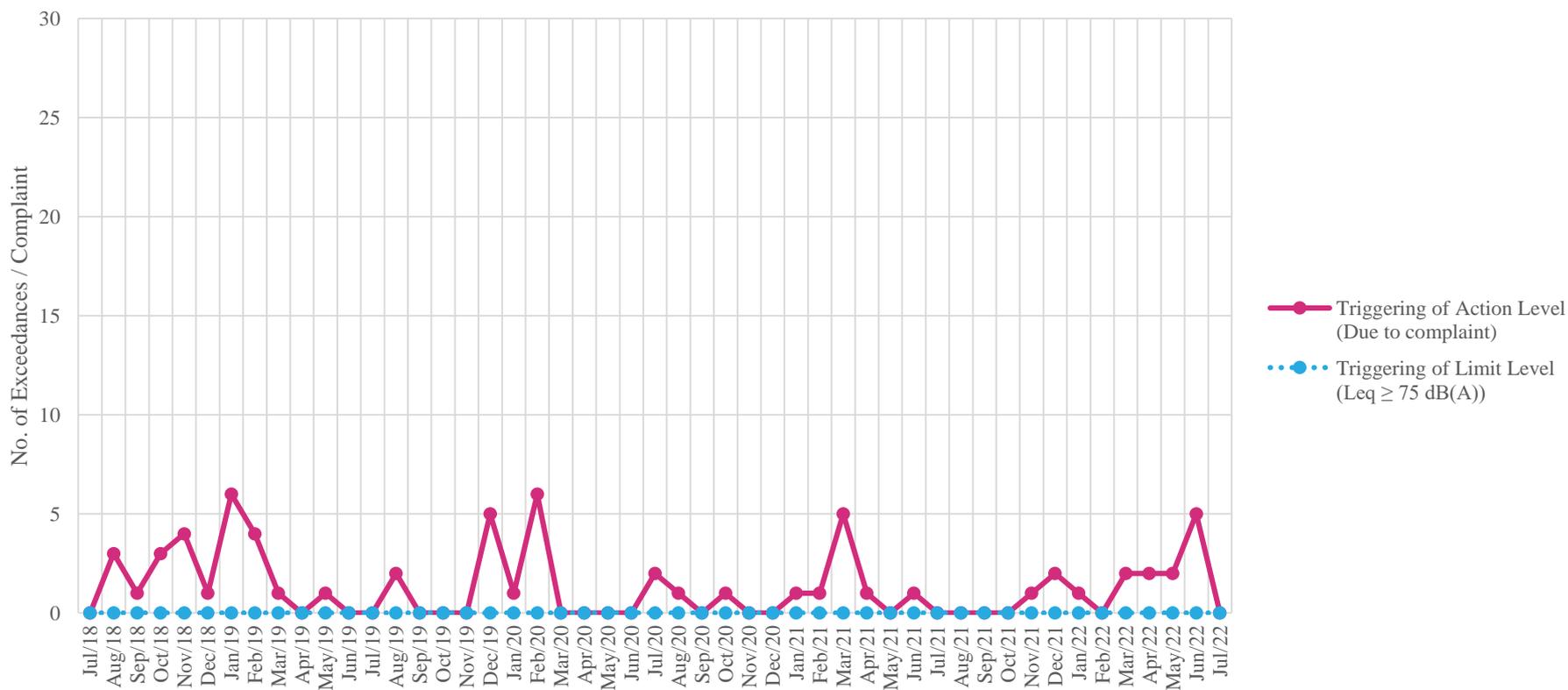
Results of noise monitoring indicated that noise levels were within acceptable level (75dBA)



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 – Water Quality



## Water Quality Monitoring

**Frequency** 3 times per week, at mid-flood & mid-ebb tides  
**Monitoring Parameter** Dissolved Oxygen, pH Value, Salinity, Turbidity, Suspended Solids, Temperature



## Monitoring Results between Jan 2022 and Jul 2022

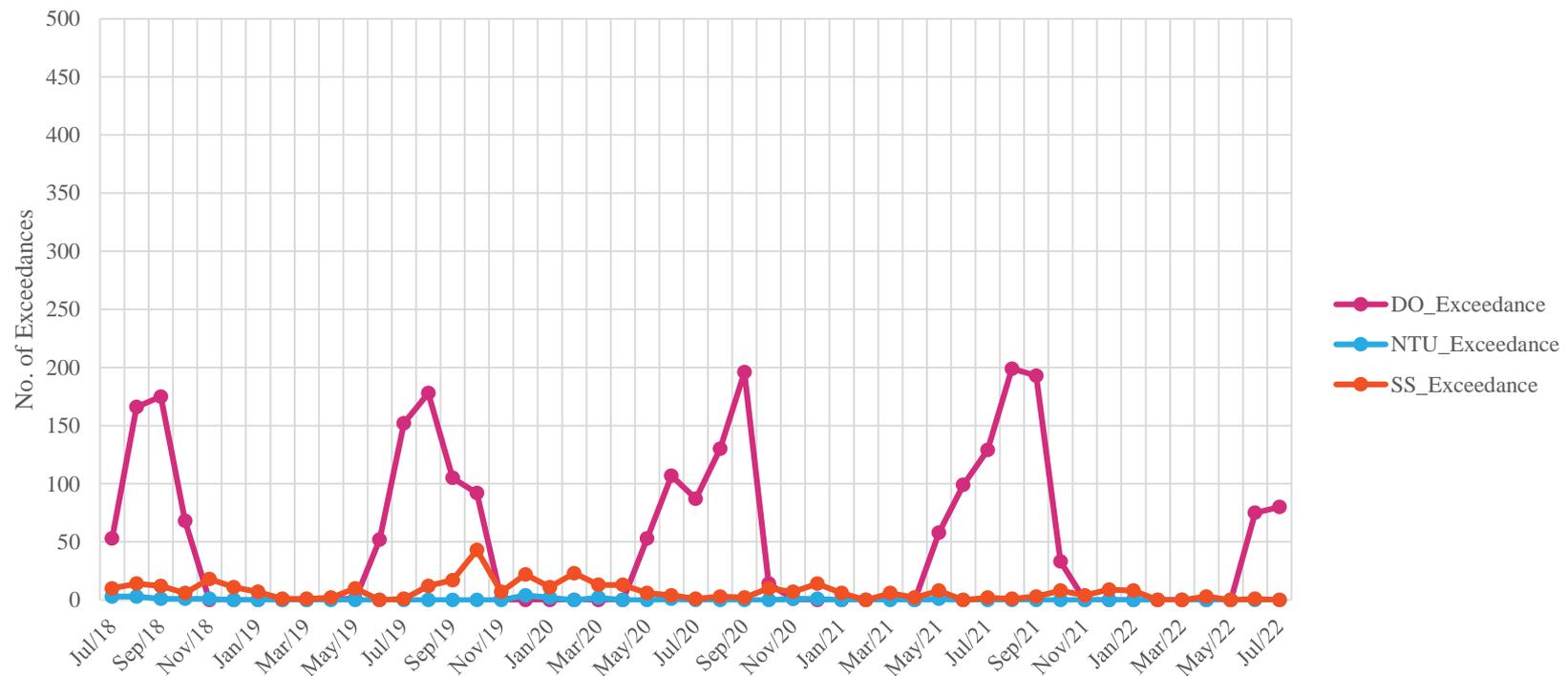
No project-related  
exceedance was recorded.



Water monitoring by ET  
(TCE-WQM2b)

# EM&A Monitoring – Water Quality

**Tung Chung New Town Extension - Reclamation and Advance Works**  
Exceedance Record of Water Quality Monitoring



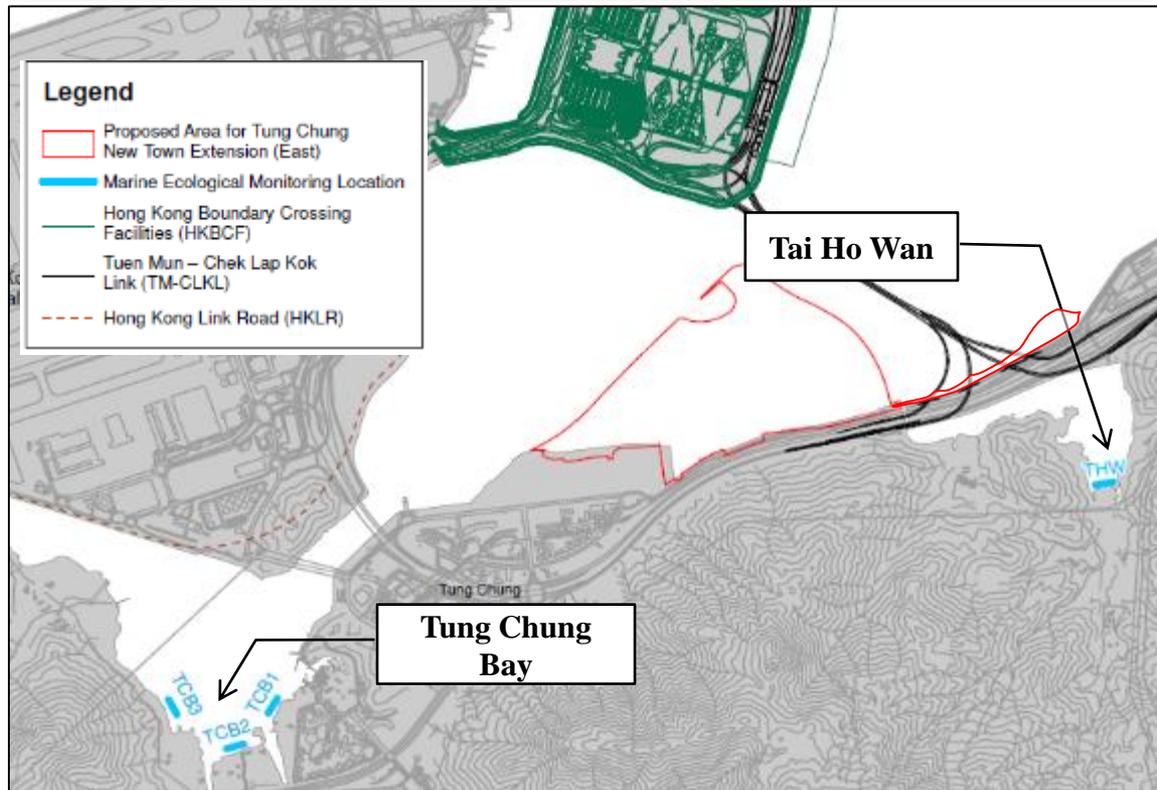
The majority exceedances recorded were DO exceedances. Low levels of DO were recorded during summer period. This trend suggested the changes should be due to seasonal fluctuation.

# EM&A Monitoring – Ecology



## Ecological Monitoring

<b>Frequency</b>	Quarterly
<b>Monitoring Parameter</b>	Horseshoe Crabs, Seagrass, Intertidal Soft Shore Communities



## Monitoring Results between Mar 2022 and Jun 2022

Ecological monitoring was conducted in Jun 2022.

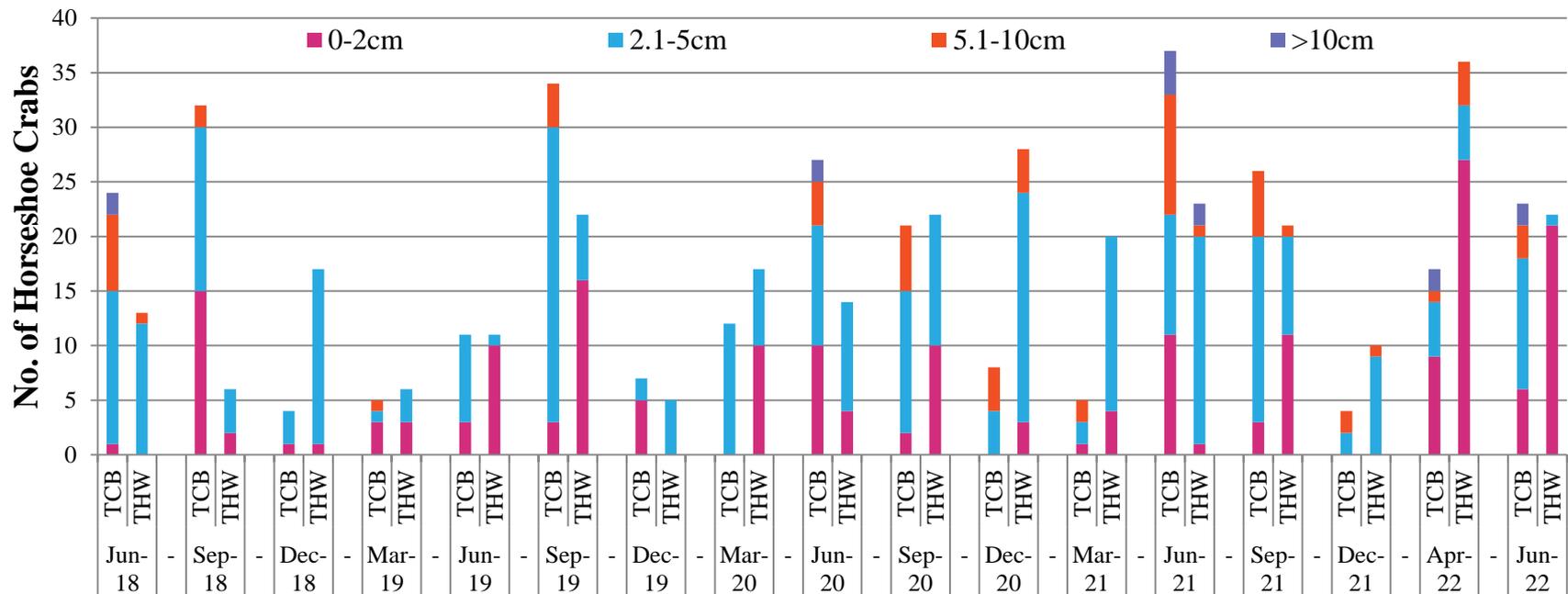
Horseshoe crabs were found in both Tung Chung Bay and Tai Ho Wan.



Juvenile *Tachypleus tridentatus* found at Tung Chung Bay

# 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)

# Complaint received

Date	Water	Air	Noise	Others (Light, Waste, Ecology)
Jul 18 – Dec 18	2	1	12	4
Jan 19 – Jun 19	4	4	12	2
Jul 19 – Dec 19	1	4	7	0
Jan 20 – Jun 20	1	6	7	0
Jul 20 – Dec 20	4	24	4	0
Jan 21 – Jun 21	3	10	9	0
Jul 21 – Dec 21	1	1	3	0
Jan 22 – Jul 22	0	10	11	0
Categories for recent complaints	<ul style="list-style-type: none"> <li>Sea pollution (Discharge)</li> </ul>	<ul style="list-style-type: none"> <li>Dust</li> <li>Dark smoke</li> <li>Ying Hei Road</li> </ul>	<ul style="list-style-type: none"> <li>Noise from Sheet pile installation</li> <li>Noise early at the morning</li> </ul>	



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# Overview and Progress

## Environmental Monitoring and Audit

### Tung Chung West

7<sup>th</sup> PLG Meeting

Date: 23 August 2022



土木工程拓展署  
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# Tung Chung West

## a) Matters Arising from Last Meeting

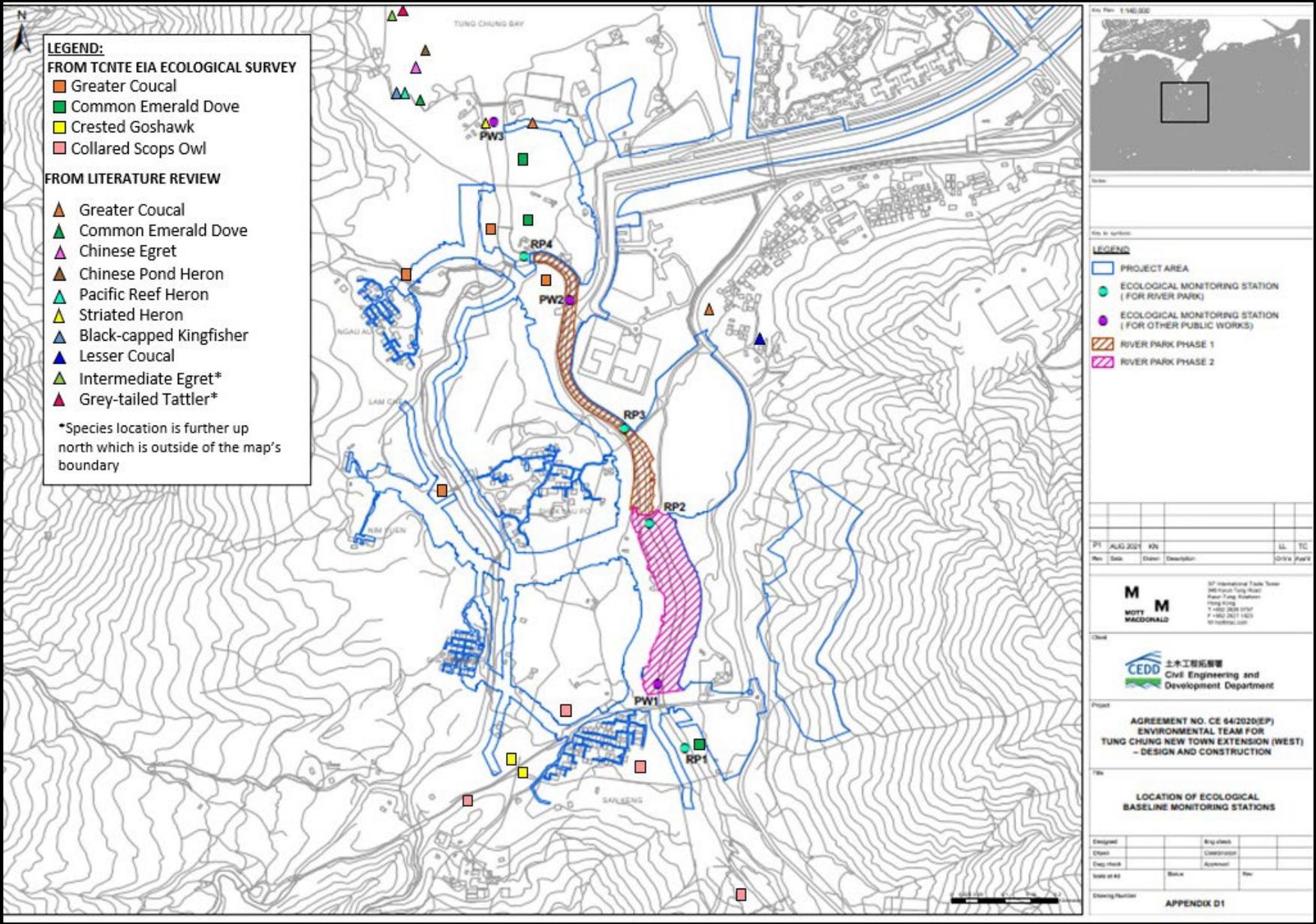
# Follow Up on Discussion in Last PLG Meeting

## 1. Monitoring of Bird Species for Ecological Monitoring (para. 5.3.2 of notes of last meeting)

Based on the ecological survey of the TCNTE EIA and literature review:

- Only two species of conservation importance (Greater Coucal and Common Emerald Dove) were recorded in the current Project Area.
- The species of conservation importance found within and near the Project Area mostly comprised resident species that are found in Hong Kong year-round and are widely distributed in Hong Kong.
- Only a minority of the local population of these species / minor proportion of the habitats used would be affected, potential impact on the bird species of conservation importance induced by the Project is considered as minor.
- Bird monitoring would not be necessary for this Project

# Follow Up on Discussion in Last PLG Meeting



# Follow Up on Discussion in Last PLG Meeting

## Avifauna Species of Conservation Importance Previously Recorded

Species Name	Chinese Name	Scientific Name	Conservation Status	Distribution	Rarity	Within Project Area	Outside Project Area
Greater Coucal	褐翅鴉鵂	<i>Centropus sinensis</i>	CRDB: V	Widely distributed in Hong Kong	Common resident	✓	
Common Emerald Dove	綠翅金鳩	<i>Chalcophaps indica</i>	CRDB: V	Widely distributed in woodland throughout Hong Kong	Scarce but widespread resident	✓	
Crested Goshawk	鳳頭鷹	<i>Accipiter trivirgatus</i>	CRDB: R; CITES II	Widely distributed in woodlands and shrublands throughout Hong Kong	Uncommon resident		✓
Collared Scops Owl	領角鴞	<i>Otus lettia</i>	CITES II	Widely distributed in shrubland throughout Hong Kong	Common resident		✓
Lesser Coucal	小鴉鵂	<i>Centropus bengalensis</i>	CRDB: V	Widely distributed in Hong Kong	Uncommon resident		✓
Black-capped Kingfisher	藍翡翠	<i>Halcyon pileata</i>	(LC)	Widely distributed in coastal areas throughout Hong Kong	Common passage migrant and winter visitor		✓
Pacific Reef Heron	岩鷺	<i>Egretta sacra</i>	(LC); CRDB: R	Widely distributed in coastal area throughout Hong Kong	Uncommon resident		✓
Chinese Egret	黃嘴白鷺	<i>Egretta eulophotes</i>	GC; IUCN:VU CRDB:E	Found in Mai Po, Lok Ma Chau, Nam Chung	Scarce spring migrant		✓
Chinese Pond Heron	池鷺	<i>Ardeola bacchus</i>	PRC(RC)	Widely distributed in Hong Kong	Common resident		✓
Intermediate Egret	中白鷺	<i>Egretta intermedia</i>	RC	Found in Deep Bay area, Tai Long Wan, Starling Inlet, Tai O, Cape D' Anguilar	Common passage migrant		✓
Striated Heron	綠鷺	<i>Butorides striata</i>	(LC)	Widely distributed in Hong Kong	Present all year. Locally common, scarce in winter		✓
Grey-tailed Tattler	灰尾漂鷗	<i>Tringa brevipes</i>	LC; IUCN:NT	Found in Deep Bay area	Common passage migrant		✓

# Follow Up on Discussion in Last PLG Meeting

## 2. Progress and Plant Species of Woodland Compensatory Planting (Item 5.4.1 of notes of last meeting)

*“A member enquired the commencement date of the woodland compensatory planting, and whether post-planting monitoring would be carried out. The Project Consultant (West) responded that planting works were expected to start from 1 March 2022 to 30 May 2022. Post planting monitoring would be conducted upon completion of the planting works. The status of tree plantation and maintenance would be reported in the next PLG meeting. Another member enquired about the source of the tree seedlings and if sufficient tree seedlings could be provided by local nurseries. The Project Consultant (West) reported that tree seedlings would be provided by the nurseries in Mainland, which had enough spaces to nurture tree seedlings in large quantity. Project Team (West) would introduce the types of trees for plantation in next meeting.”*

- The woodland compensatory planting commenced on 1 March 2022 and was substantially completed on 30 May 2022. Establishment works commenced subsequently.
- The plant species adopted for the compensatory woodland planting are listed in the planting schedule.

SCIENTIFIC NAME	CHINESE NAME
LIGUSTRUM SINENSE	山指甲
MALLOTUS PANICULATUS	白楸
CASTANOPSIS FISSA	鰲菊錐
CELTIS SINENSIS	朴樹
CINNAMOMUM BURMANNII	陰香
SAPIUM SEBIFERUM	烏柏
CLAUSENA LANSIUM	黃皮
POLYSPORA AXILLARIS	大頭茶
FICUS MICROCARPA	榕樹
SCHIMA SUPERBA	木荷
ILEX ROTUNDA VAR. MICROCARPA	小果鐵冬青
LIQUIDAMBAR FORMOSANA	楓香
REEVESIA THYRSOIDEA	梭羅樹
DIMOCARPUS LONGAN	龍眼
PHYLLANTHUS EMBLICA	餘甘子
SAPIUM DISCOLOR	山烏柏
CINNAMOMUM CAMPHORA	樟
SCHEFFLERA HEPTAPHYLLA	鵝掌柴
STERCULIA LANCEOLATA	假蘋婆
MYRICA RUBRA	楊梅



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# Tung Chung West

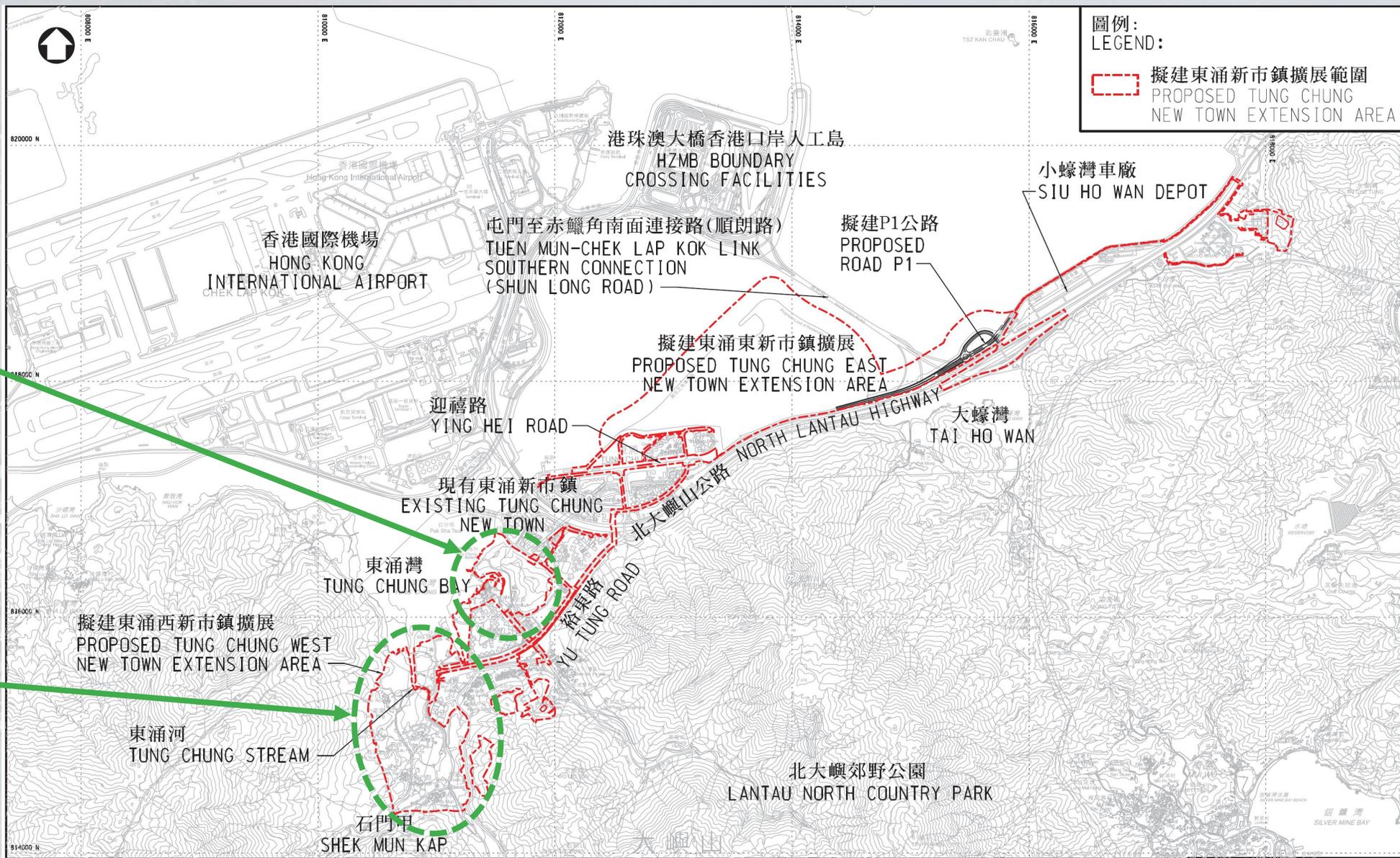
## b) Overview and Progress



# Location of Tung Chung West Works Contracts

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

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



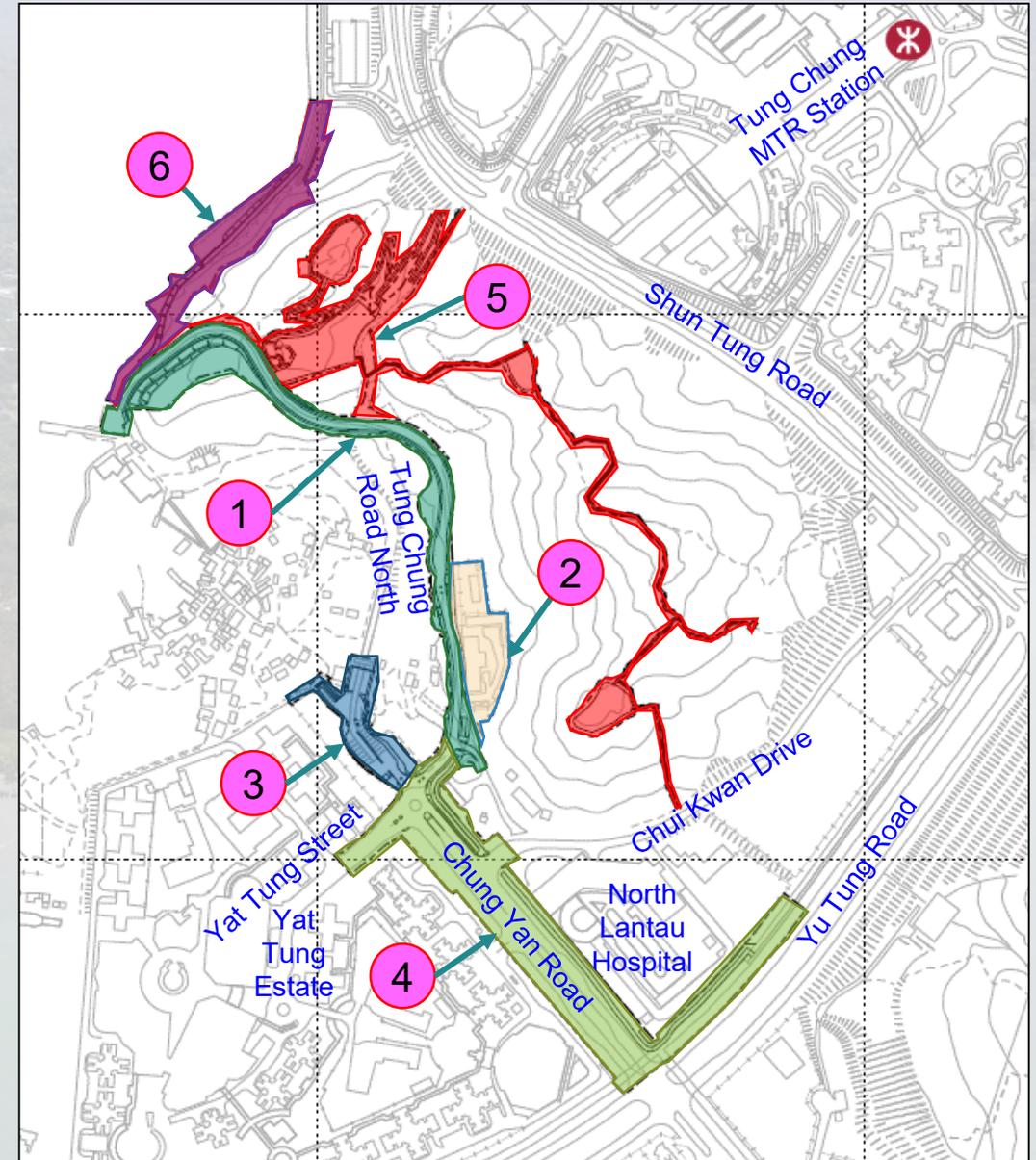
# Contract No. NL/2020/05 – Site Formation & Infrastructure Works at Ma Wan Chung

Item	Major Works
1	Widening of Tung Chung Road North
2	Site Formation of Area 23
3	Construction of Carpark at Ma Wan Chung
4	Road Improvement Works and Drainage Works at Chung Yan Road
5	Construction of Open Space at Area 29A
6	Construction of the Coastal Pedestrian Access

**Contract Period : May 2021 to January 2025**

## Major activities in coming three months :-

- Slope works and underground utilities works along Tung Chung Road North
- Demolition of Tung Chung Community Services Complex at Area 23
- Site formation works at Area 23
- Construction of retaining walls at Ma Wan Chung Carpark
- Construction of covered walkway and underground utilities works at Chung Yan Road
- Site formation works for Town Park at Area 29A
- Formation of site access at Coastal Pedestrian Access



# Contract No. NL/2020/05 – Site Progress

## Progress of Tung Chung Road North:

1. Slope cutting and installation of soil nails in progress.
2. Sheet piling works for underground utilities works in progress.



# Contract No. NL/2020/05 – Site Progress

## Progress of Area 23:

1. Demolition of existing Church completed.
2. Demolition of former Tung Chung Community Services Complex in progress.
3. GI works for future HD housing development to be commenced.



# Contract No. NL/2020/05 – Site Progress

## Progress of Ma Wan Chung Car Park:

1. Temporary drainage diversion completed.
2. Sheet piling works for retaining wall construction in progress.
3. Environmentally friendly construction method for sheet piling works adopted.



# Contract No. NL/2020/05 – Site Progress

## Progress of Chung Yan Road:

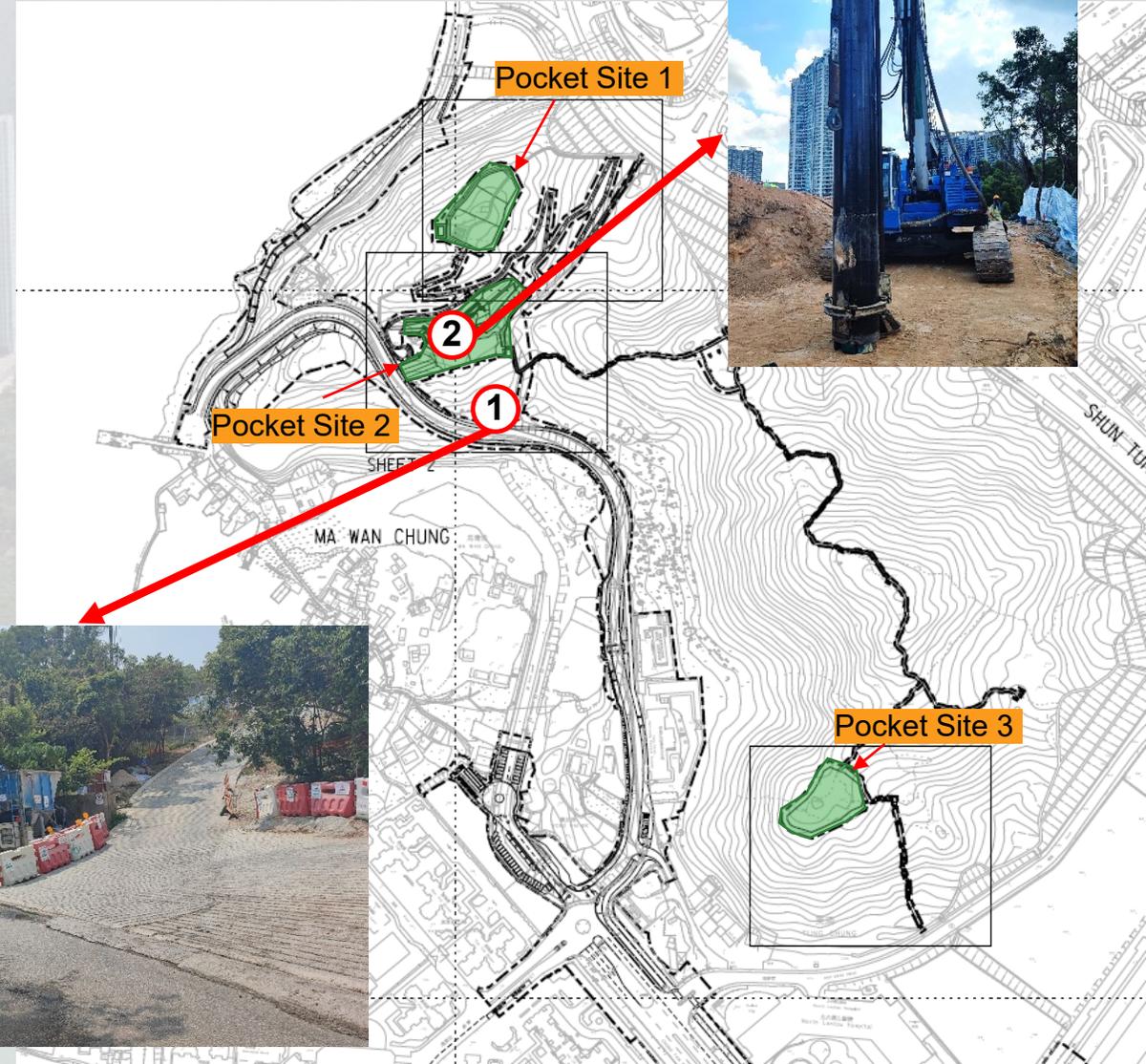
1. Construction of covered walkway to be commenced.
2. TTMS related to construction of covered walkway and underground utilities works were implemented.



# Contract No. NL/2020/05 – Site Progress

## Progress of Area 29A:

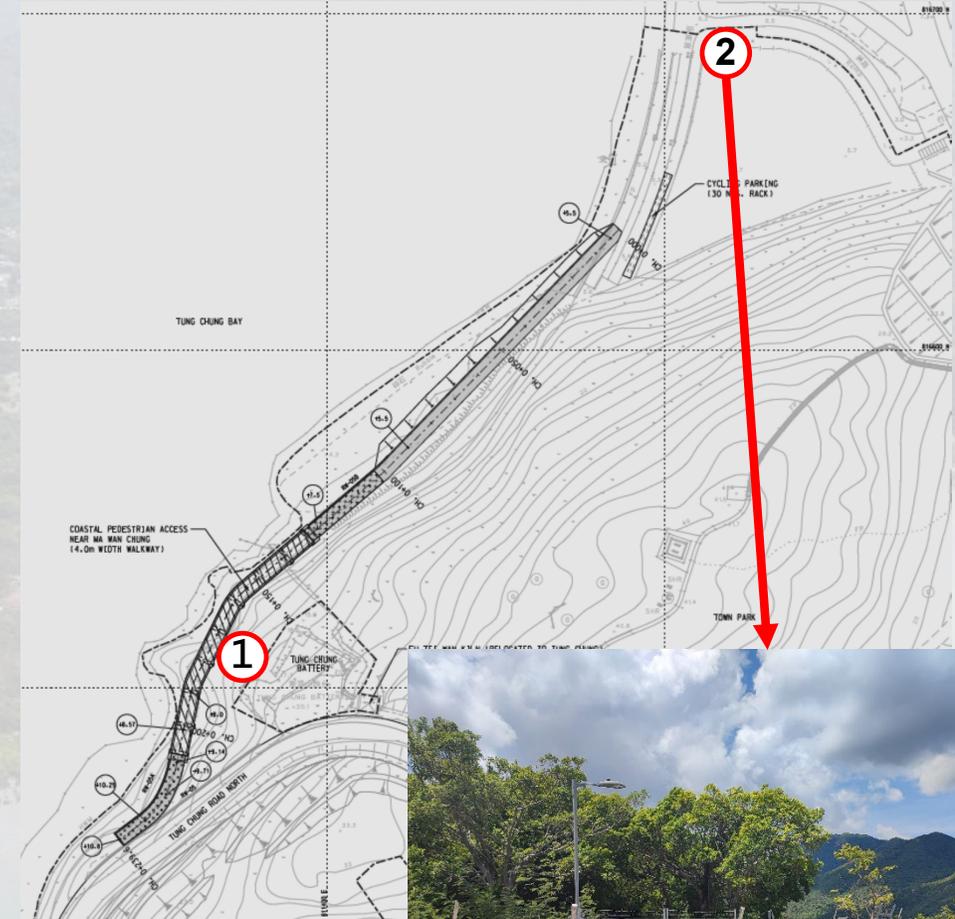
1. Soldier pile wall construction at Pocket Site 2 in progress.
2. Retaining wall construction at Pocket Site 1 to be commenced.



# Contract No. NL/2020/05 – Site Progress

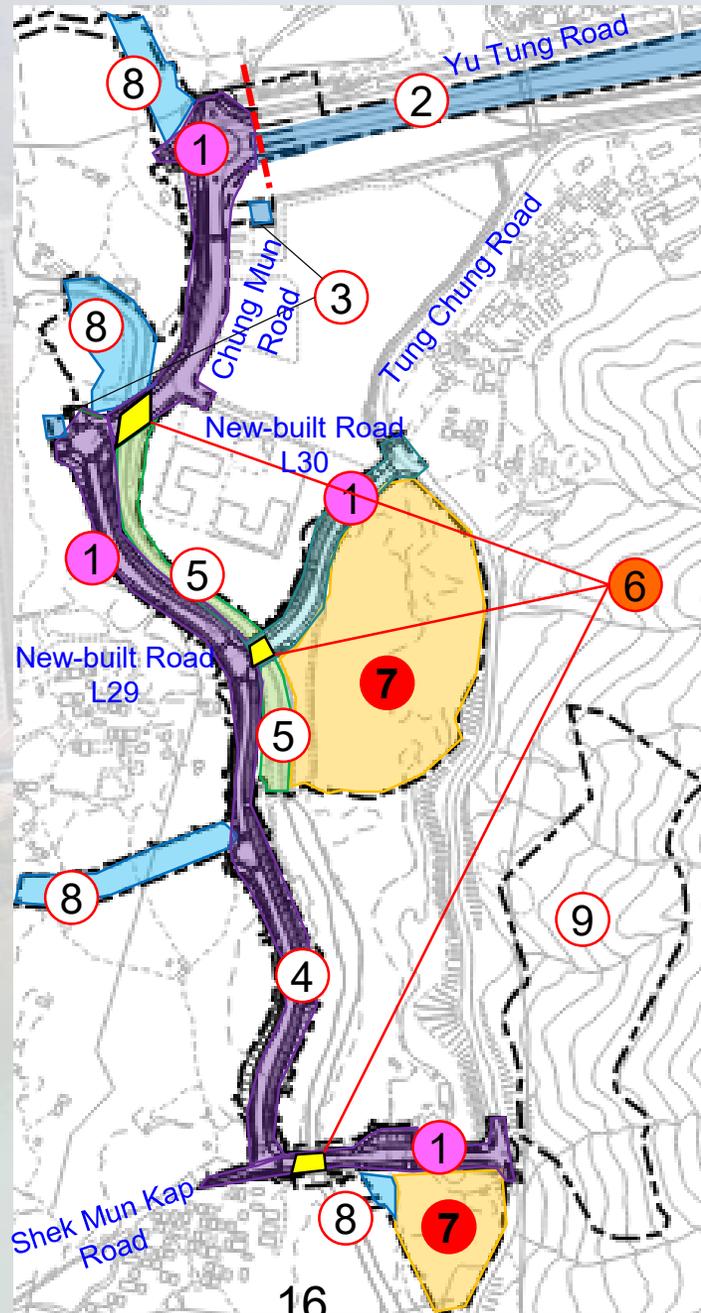
## Progress of Coastal Pedestrian Access (CPA):

1. Archaeological works completed.
2. Formation of temporary site access in progress.



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

Item	Major Works
1	Road Works for Chung Mun Road, Road L29, Road L30 & Shek Mun Kap Road
2 & 3	Sewerage Pumping Station & Associated Pressurized Pipes
4	Common Utility Tunnel
5	River Park & Visitor Center
6	Bridges across Tung Chung River
7	Site Formation at Area 42 & Area 46
8	Sustainable Urban Drainage System
9	Woodland Compensatory Planting



**Contract Period : May 2021 to January 2025**

**Major activities in coming three months :-**

- Sheet piling works for temporary river diversion at Road L29
- Roadworks and underground utilities works at Road L30
- Piling works for Sewerage Pumping Station (SPS)
- Roadworks and underground utilities works along Yu Tung Road
- Site formation works and land decontamination works at Area 42
- Archaeological survey

# Contract No. NL/2020/06 – Site Progress

## Progress of Road L29 and Road L30 :

1. Ground investigation works at Road L29 in progress.
2. Construction of underground utilities works at Road L30 in progress.



## Progress of River Park:

1. Sheet piling works for temporary Tung Chung Stream diversion in progress.



# Contract No. NL/2020/06 – Site Progress

## Progress of SPS-A:

1. Piling works in progress.



## Progress of Yu Tung Road:

1. Roadworks and underground utilities works in progress.



# Contract No. NL/2020/06 – Site Progress

## Progress of Area 42:

1. Site formation works in progress.
2. Drainage works in progress.
3. Land contamination assessment completed and land decontamination works commenced.
4. GI works for future HD housing development to be commenced.



# Contract No. NL/2020/06 – Site Progress

## Progress of Shek Mun Kap Road:

1. Site clearance works in progress.

## Progress of Area 46:

1. Site clearance works to be commenced.
2. GI works for future HD housing development to be commenced.





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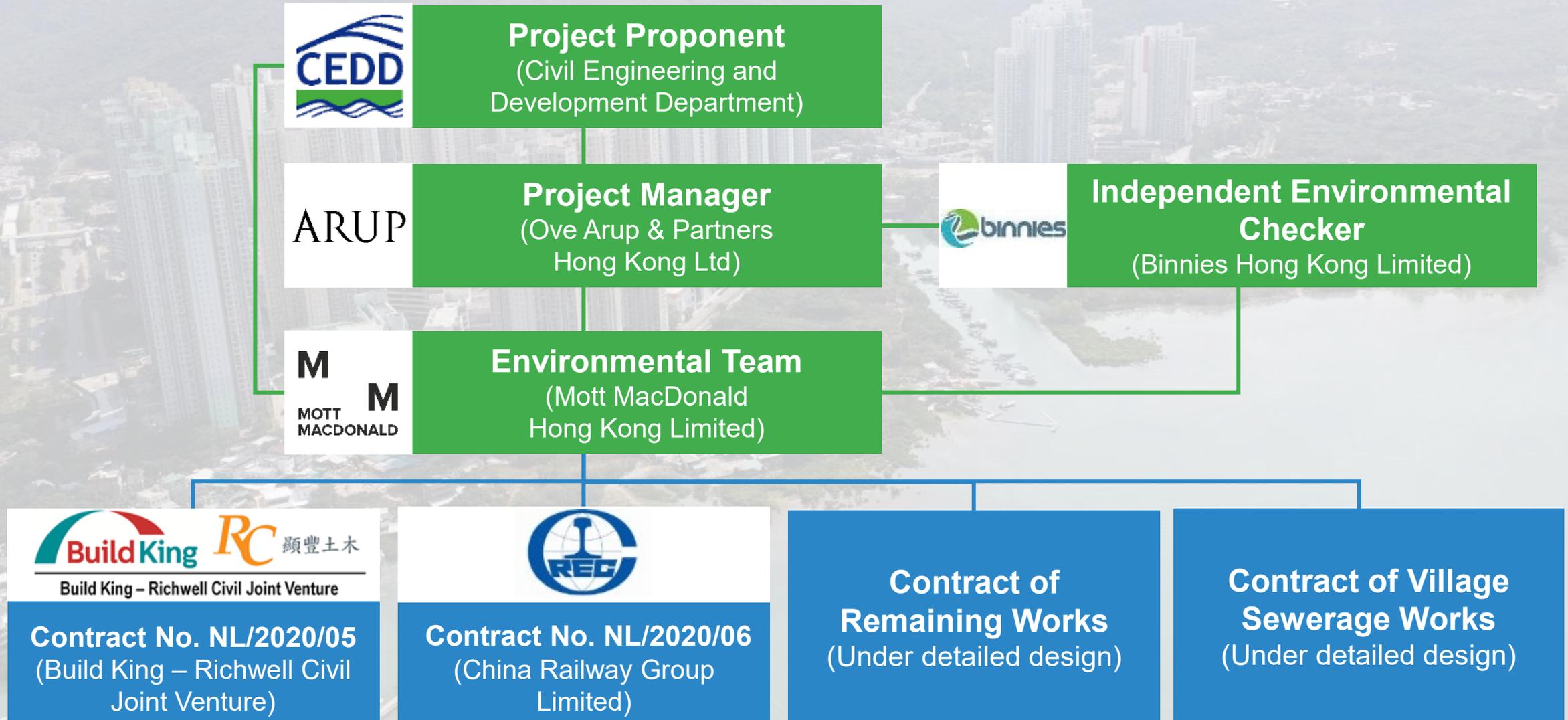


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# Tung Chung West

## c) Environmental Monitoring and Audit

# Management Organisation



# Environmental Mitigation Measures for Construction Activities



Water Spraying during demolition activities for dust control



Silenced Piling Machinery



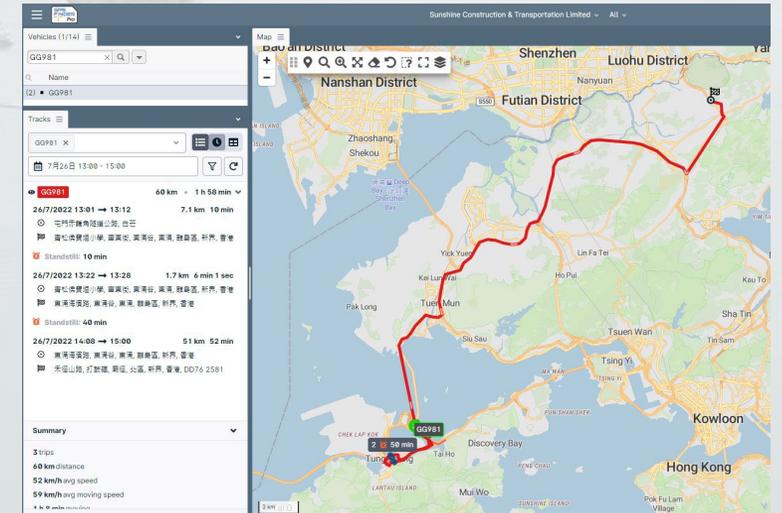
Wastewater Treatment Facility



Wheel Washing Facility



Noise Barrier for concrete breaking activities



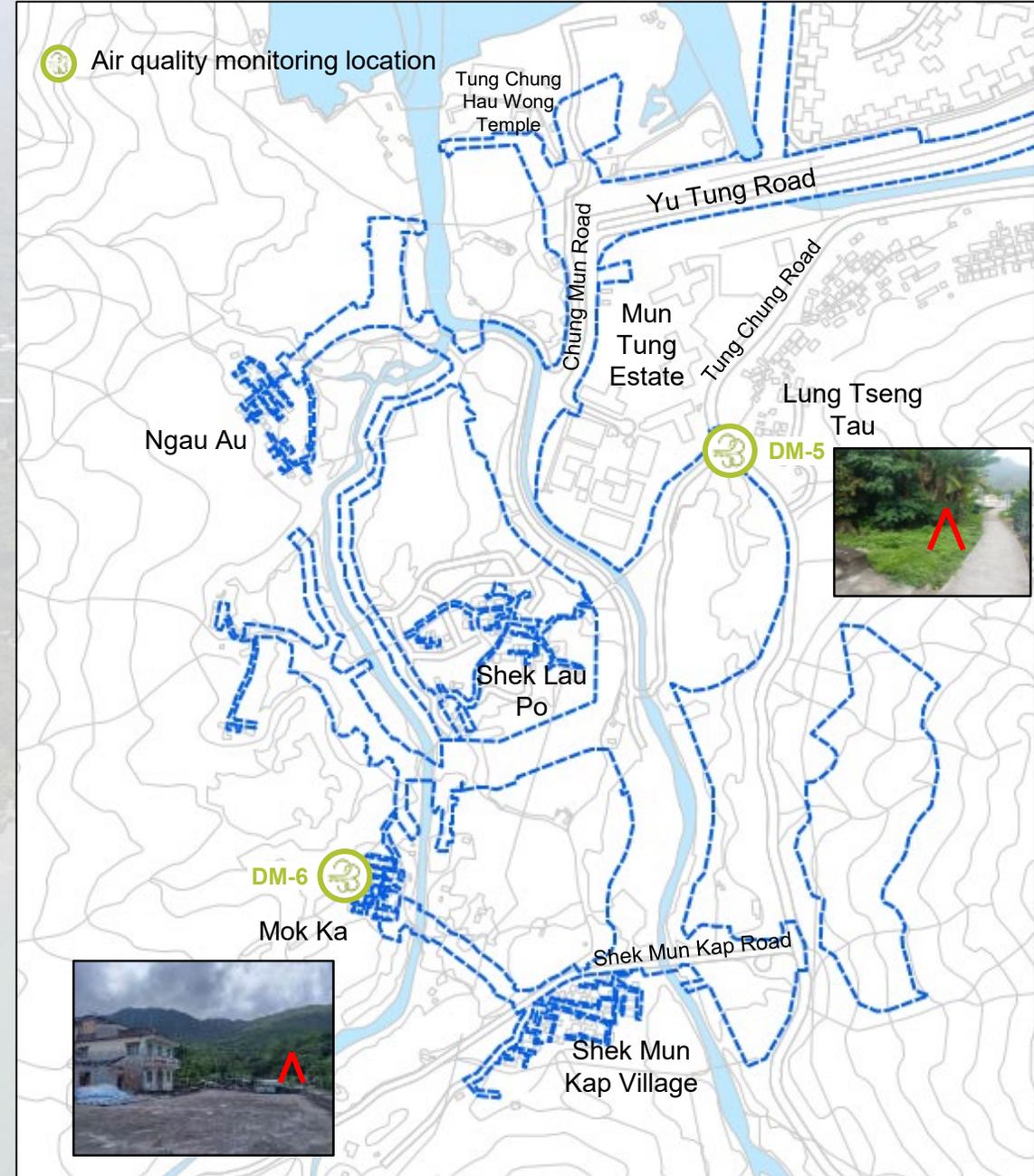
Real Time Tracking and Monitoring System for Dump Trucks

# EM&A Monitoring – Air Quality

ID	Description	Monitoring Parameter	Monitoring Frequency
DM-5	Lung Tseng Tau	1-hr TSP	Three times every six days
DM-6	Mok Ka		

## Monitoring Results from Jan 2022 to Jul 2022

No exceedances were recorded

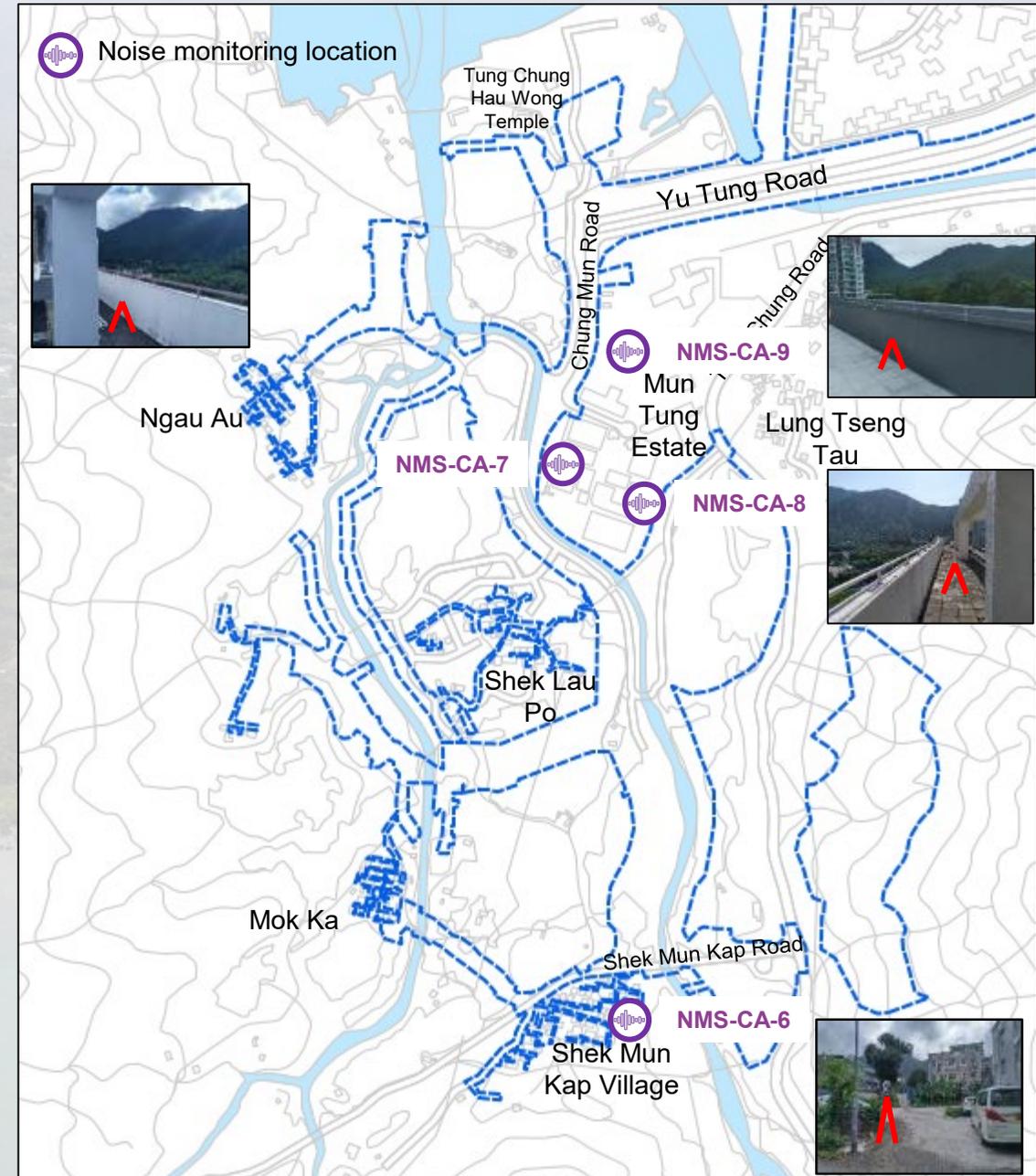


# EM&A Monitoring – Noise

ID	Description	Monitoring Parameter	Monitoring Frequency
NMS-CA-5	Village house in Ma Wan Chung	A-weighted equivalent continuous sound pressure level $L_{eq}$	Once per week
NMS-CA-6	Village house in Shek Mun Kap		
NMS-CA-7	YMCA of Hong Kong Christian College		
NMS-CA-8	Caritas Charles Vath College (Roof Floor)		
NMS-CA-9	Hong Chi Shiu Pong Morninghope School (Roof Floor)		

Monitoring Results from Jan 2022 to Jul 2022

No limit level exceedance was recorded



# EM&A Monitoring – Noise

Summary of exceedance between Jan 2022 and Jul 2022

Date	Action Level Exceedance (triggered by complaint)	Limit Level Exceedance ( $L_{eq(30min)} \geq 75dB(A)$ )	Complaint Content
6-Apr-2022	✓	N/A	<ul style="list-style-type: none"> <li>Complaint about noise nuisance derived from the construction of carpark in Ma Wan Chung</li> </ul>

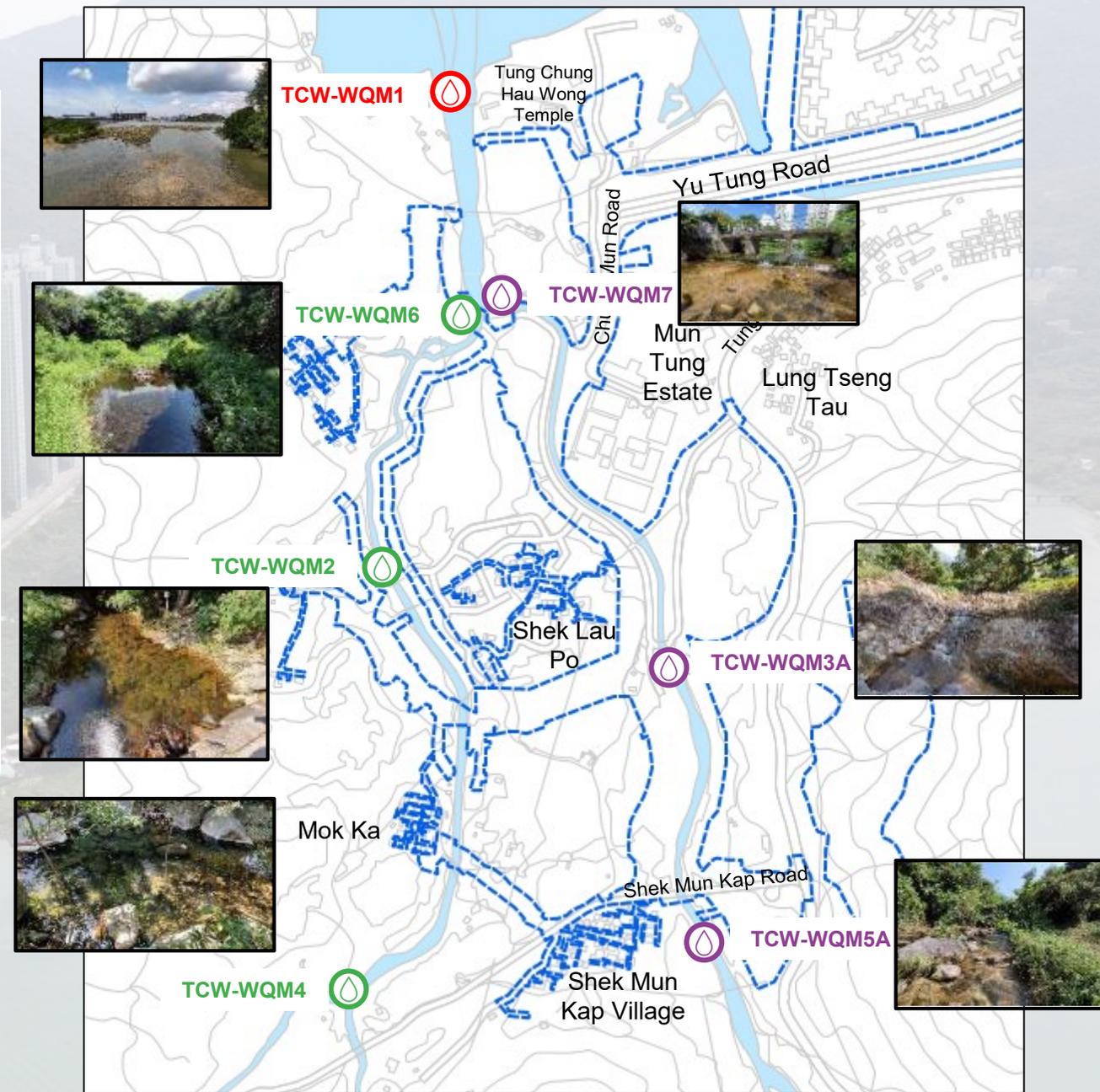
Investigation Result	Enhanced Mitigation Measures Implemented by Contractor
<ul style="list-style-type: none"> <li>Concrete breaking and removal activities</li> </ul>	<ul style="list-style-type: none"> <li>Enhanced noise barrier and enclosure to minimise the impact to the noise sensitive receivers in the vicinity of the site.</li> <li>Noise monitoring at the noise sensitive receiver to monitor the construction noise effectively</li> </ul>



# EM&A Monitoring – Water Quality

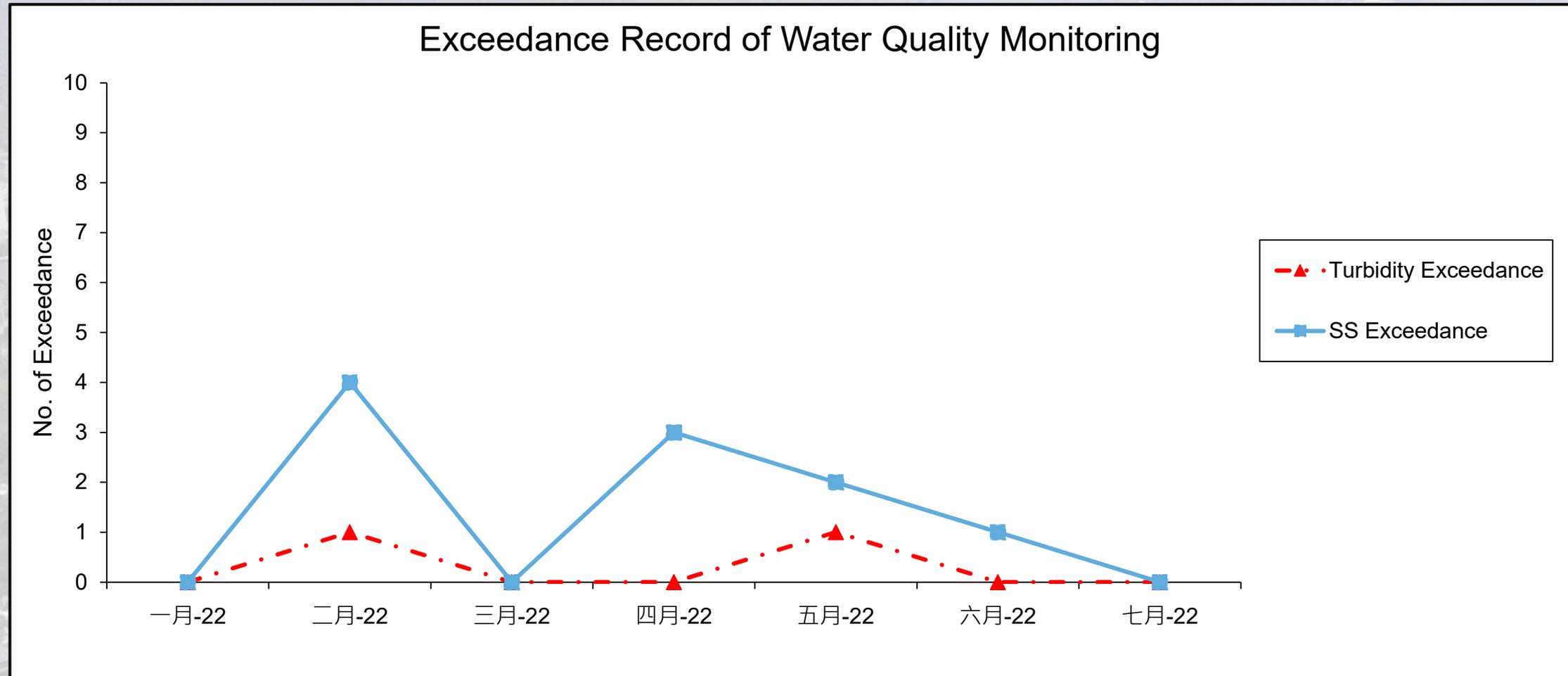
ID	Description	Monitoring Parameter	Monitoring Frequency
TCW-WQM-1	Downstream of Tung Chung Stream	<ul style="list-style-type: none"> <li>• Temperature</li> <li>• Salinity</li> <li>• Conductivity</li> <li>• pH</li> <li>• Dissolved Oxygen</li> <li>• Turbidity</li> <li>• Suspended Solids</li> </ul>	3 days per week
TCW-WQM-2	Middle of Tung Chung Stream (West)		
TCW-WQM-3A	Middle of Tung Chung Stream (East)		
TCW-WQM-4	Upstream of Tung Chung Stream (West)		
TCW-WQM-5A	Upstream of Tung Chung Stream (East)		
TCW-WQM-6	Downstream of Tung Chung Stream (West)		
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 Jan 2022 to Jul 2022



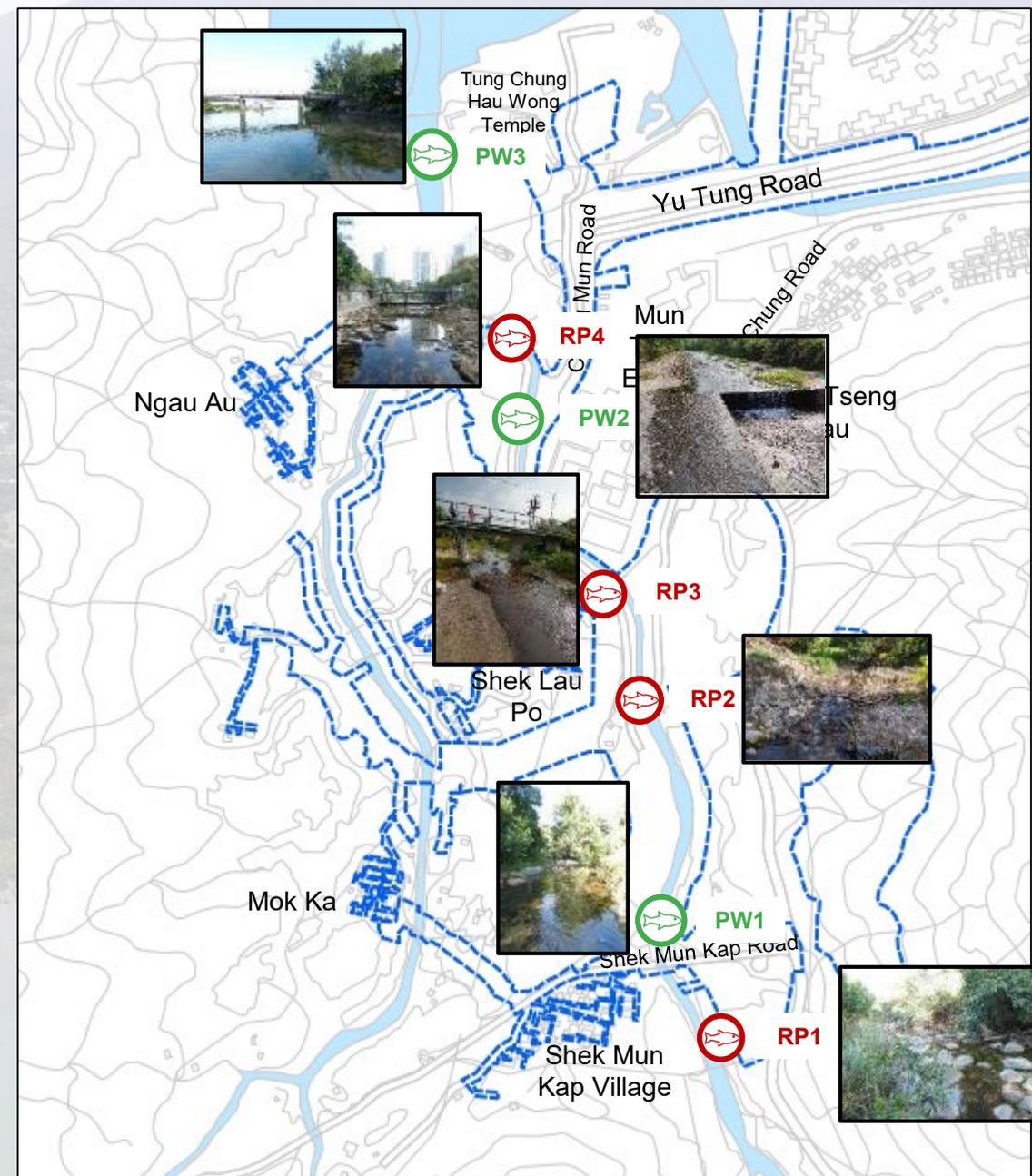
SS measurement was the majority exceedances as recorded in the reporting period which were due to inclement weather and river clearance works carried out by other contractor.

# EM&A Monitoring – Ecology

ID	Description	Monitoring Parameter	Monitoring Frequency
RP1	Conservation Zone (Natural Section)	<ul style="list-style-type: none"> <li>Water Quality [Note]</li> <li>Taxa diversity of Fish Species and Aquatic Invertebrate</li> </ul>	Once per month
RP2	Upstream of River Park		
RP3	Revitalisation Zone (Channelised Section)		
RP4	Downstream of River Park		
PW1	Near Public Works		
PW2	Near Public Works		
PW3	Near Public Works		

## Notes:

- pH
- Salinity
- Temperature
- Turbidity
- Dissolved Oxygen
- Suspended Solids
- Ammonia as N
- Total Kjeldahl Nitrogen
- E. Coli
- Biochemical Oxygen Demand
- Chemical Oxygen Demand
- Oil & Grease



Ecological monitoring location for other public works



Ecological monitoring location for the proposed River Park

# EM&A Monitoring – Ecology

## Summary of exceedance between Jan 2022 and Jul 2022

Month	Monitoring Parameter	Monitoring Stations	No. of Fish Species			Related to Project (Yes(Y) / No(N))
			Action Level	Limit Level	Monitoring Result	
Jan 2022	Taxa diversity of fish species	PW3	4.2 (Dry season)	3.0 (Dry season)	6	N
Feb 2022					2	
Mar 2022			5			
Apr 2022			5			
May 2022			6			
Jun 2022			6			
Jul 2022			6			
			4.4 (Wet season)	3.2 (Wet season)		

\*Numbers highlighted in red when exceedance occurred.

# Complaint Received

Month	Air	Noise	Water	Others (Waste, Ecology, Landscape and Visual)
Jan-2022	0	0	1	0
Feb-2022	0	0	0	1
Mar-2022	0	0	0	0
Apr-2022	0	1	0	1
May-2022	0	0	0	0
Jun-2022	0	0	0	0
Jul-2022	0	0	0	1
Nature of Complaints	Nil	<ul style="list-style-type: none"> <li>Construction noise from concrete breaking and removal</li> </ul>	<ul style="list-style-type: none"> <li>Discharge of wastewater</li> </ul>	<ul style="list-style-type: none"> <li>Light pollution from site office</li> <li>Construction work near green belt area</li> <li>Improper handling of toilet waste (Investigation in progress)</li> </ul>



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Thank you