v3a (Arup v5 updated)

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

Expansion of Hong Kong International Airport into a Three-Runway System

16th Professional Liaison Group Meeting

26 May 2026

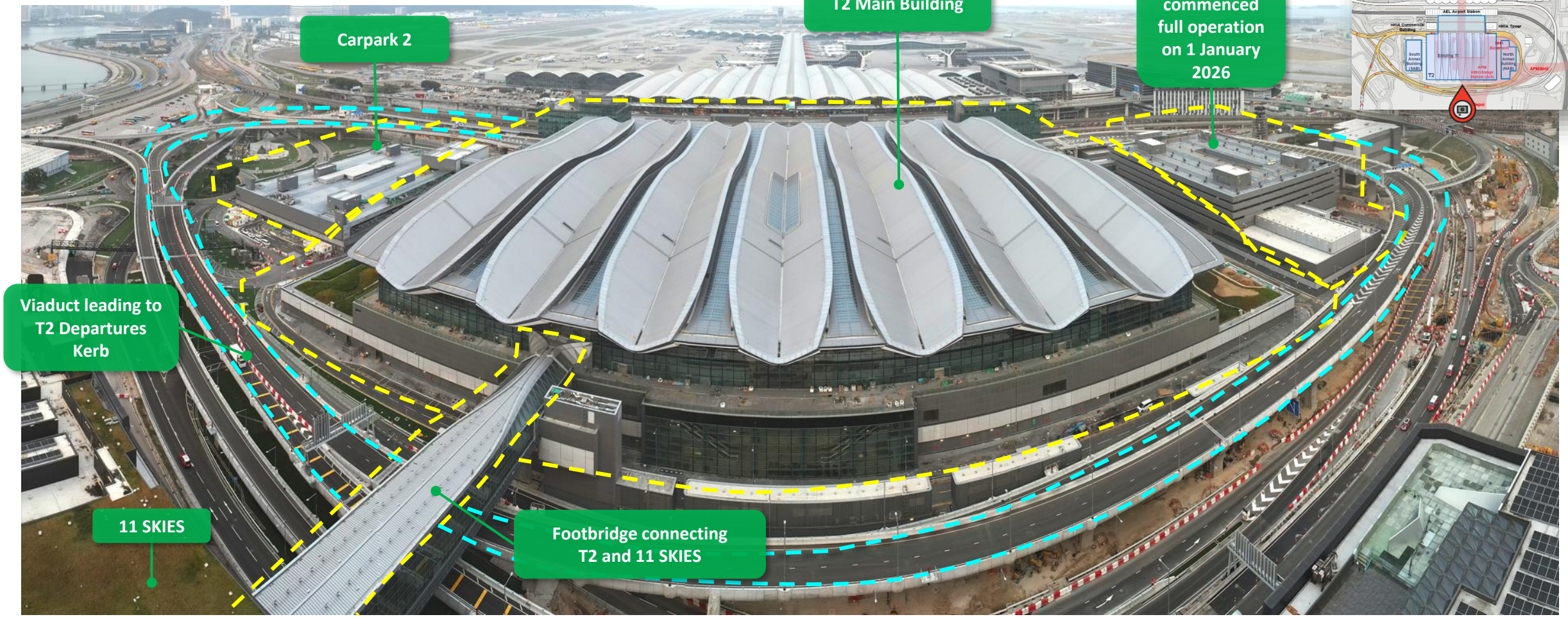
Agenda

1. Update on 3RS Project and Other Airport Development
2. 3RS EM&A Updates
3. Marine Ecology and Fisheries Enhancement Strategy
4. Waste Management
5. Weather Preparedness

Update on 3RS Project & Other Airport Development

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

Expanded Terminal 2 (T2)



(Photo: Apr 2026)

- **Commissioning of the T2 departures mode operation on 27 May 2026.**

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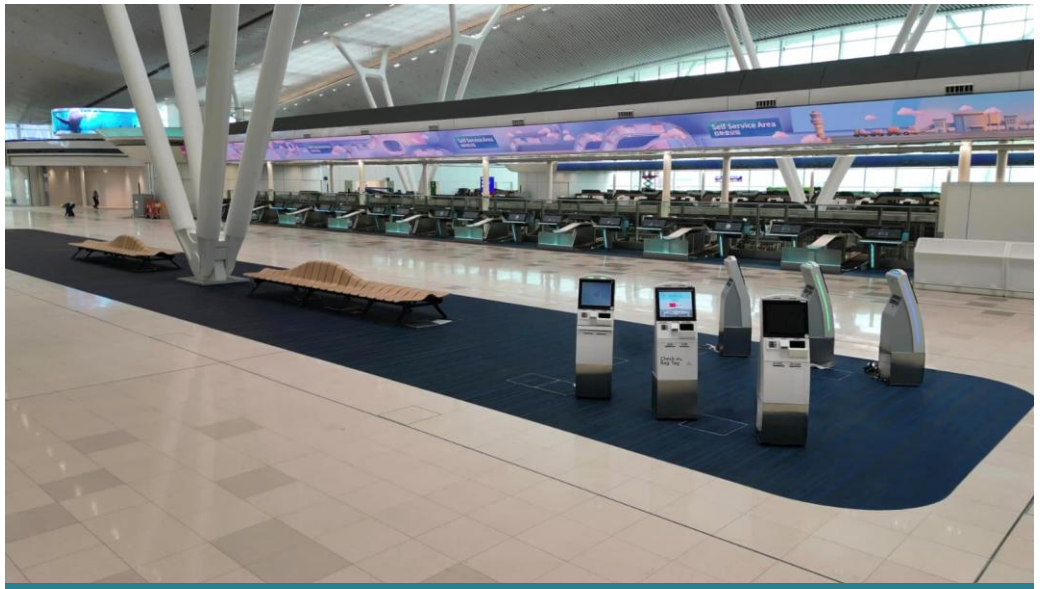
Readiness for Commissioning of T2 Departures Mode Operation

Level 7 Departures Hall Check-in Area



Level 7 Departures Hall Self-bag-drop Counters

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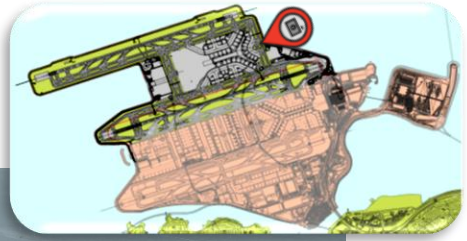
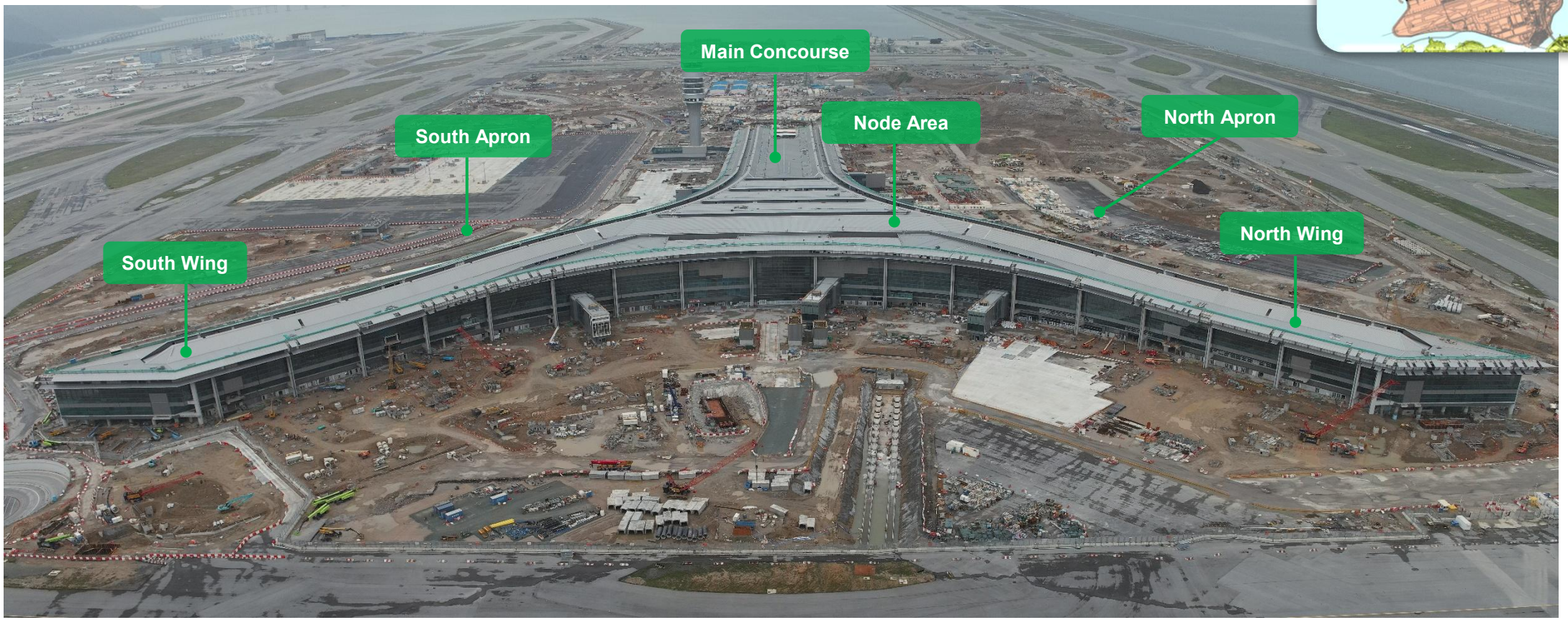
Terminal 2 Concourse (T2C)





(Photo: Apr 2026)

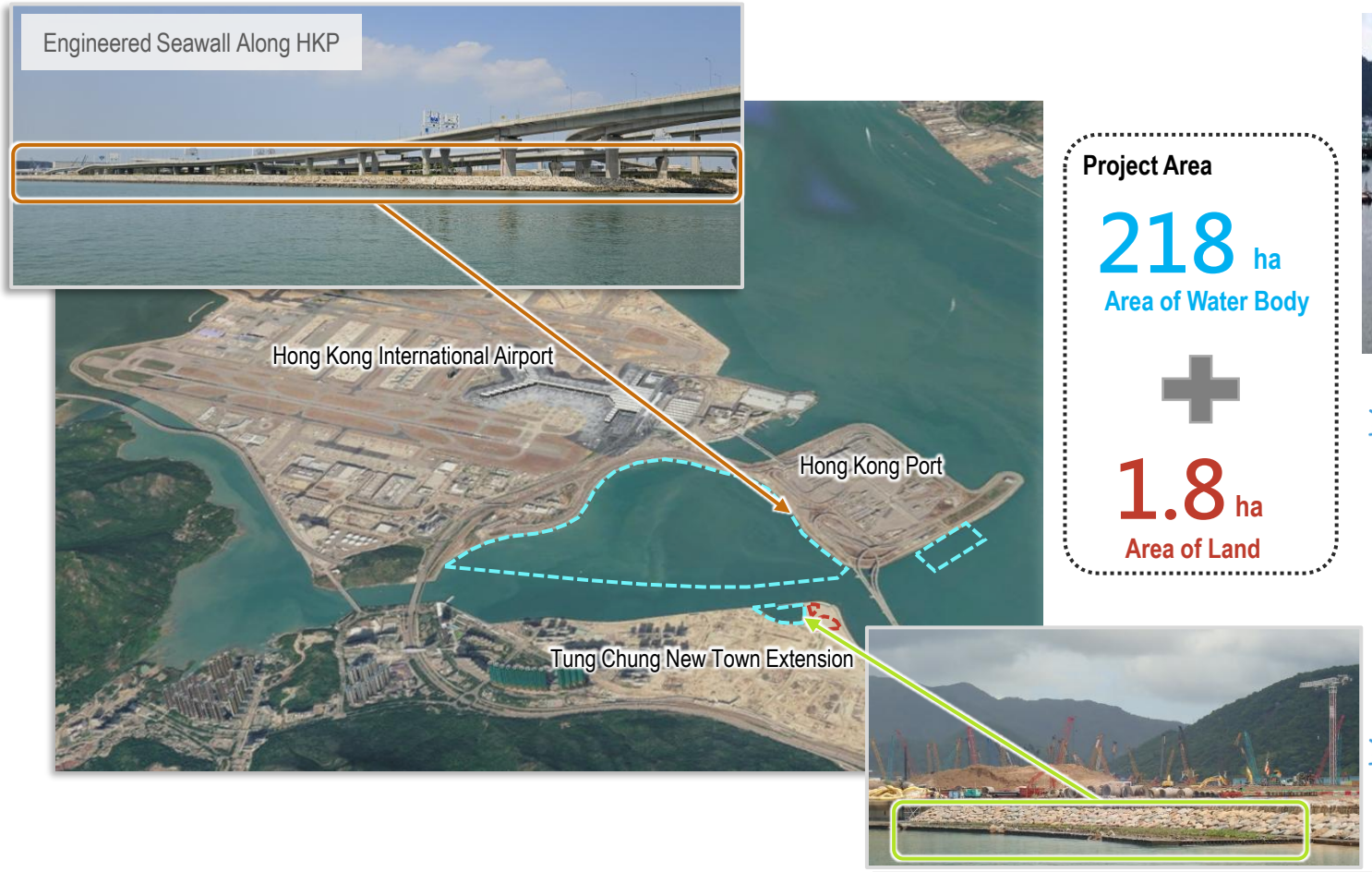
- **Works progress with statutory inspections on fire service installations target to commence in late Q2 2026.**

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

Positioning of the Water Recreation and Yacht Bay Development

- Develop a World-leading **Airport City** and the Yacht Economy under the 2024 and 2025 Policy Addresses
- Strengthen Hong Kong International Airport's status as an **international aviation hub**
- Inject vibrancy into coastal tourism advocated in **14th Five-Year Plan** and **GBA ODP** and Lantau Tourism
- Enhance **sense of wellbeing of the community** outlined in **15th Five-Year Plan** through diversified yachting and water recreation
- Address **local berth demand** and synergise with planned marina developments
- **Enriching offerings of recreation and leisure activities in Lantau and Hong Kong** for all user types

Current Condition



Project Area

218 ha
Area of Water Body

+

1.8 ha
Area of Land

Mangrove Eco-shorelines under TCNTE

Image Sources: Google Earth (2026); Yahoo News (2019); & Singtao Daily (2024)

Higher likelihood of **uncontrolled yacht berthing and mooring activities**, and **unexpected environmental disturbance**

Water recreational activities may be carried out in areas **without adequate environmental consideration in long term**

Utilises vast sea area to deliver broader community and economic benefits

- Supports water-based recreational activities for different user groups and people of all ages
- Generate employment opportunities and value-added growth across local industries
- Stimulate marine leisure and coastal tourism in GBA yacht economy

Early identification and prevention of environmental issues with Environmental Management Plans for Marina and Water Park

Highlights of the Project

HKP East Mooring Space
(Max. No. of Berths : 27)

Cable Wake Park and
Inflatable Park

HKP South Berthing Facility
(Max. No. of Berths : 495)

Water Park

Area for Motorised
Water Sports
Activities

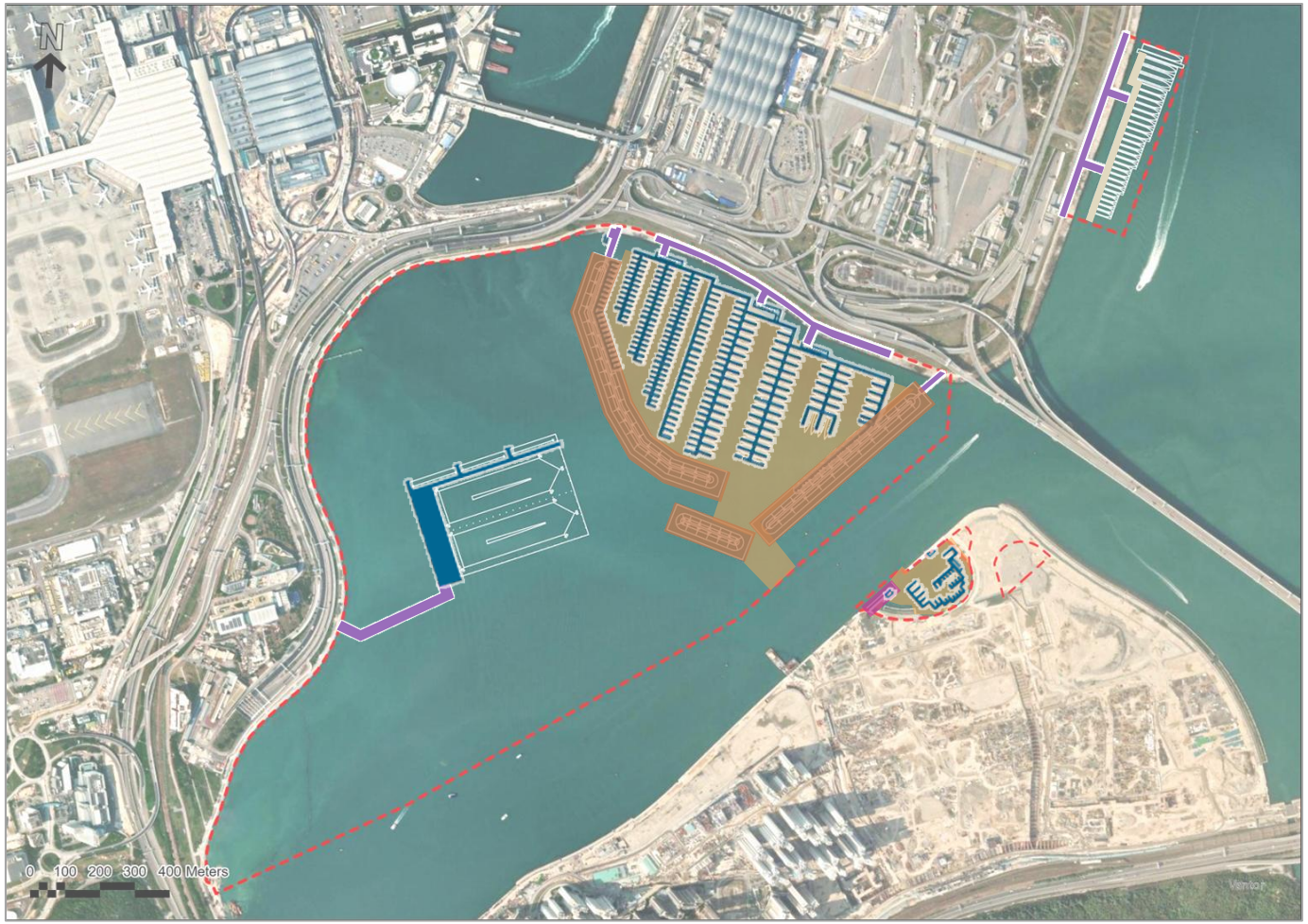
Water Recreation Area

TCE Marina
(Max. No. of Berths : 51)

Dry Dock Storage and Berth
Maintenance

Marina Club and Commercial Use
with Ancillary Car Park

Major Construction Activities



- Rubble-mound breakwater at HKP South
- Vertical breakwater at TCE Marina
- Dredging works (~1.4Mm^3)
- Shoreside Connection (with piled foundation)
- Floating pontoons and platforms (with piled foundation)
- Piled deck structures

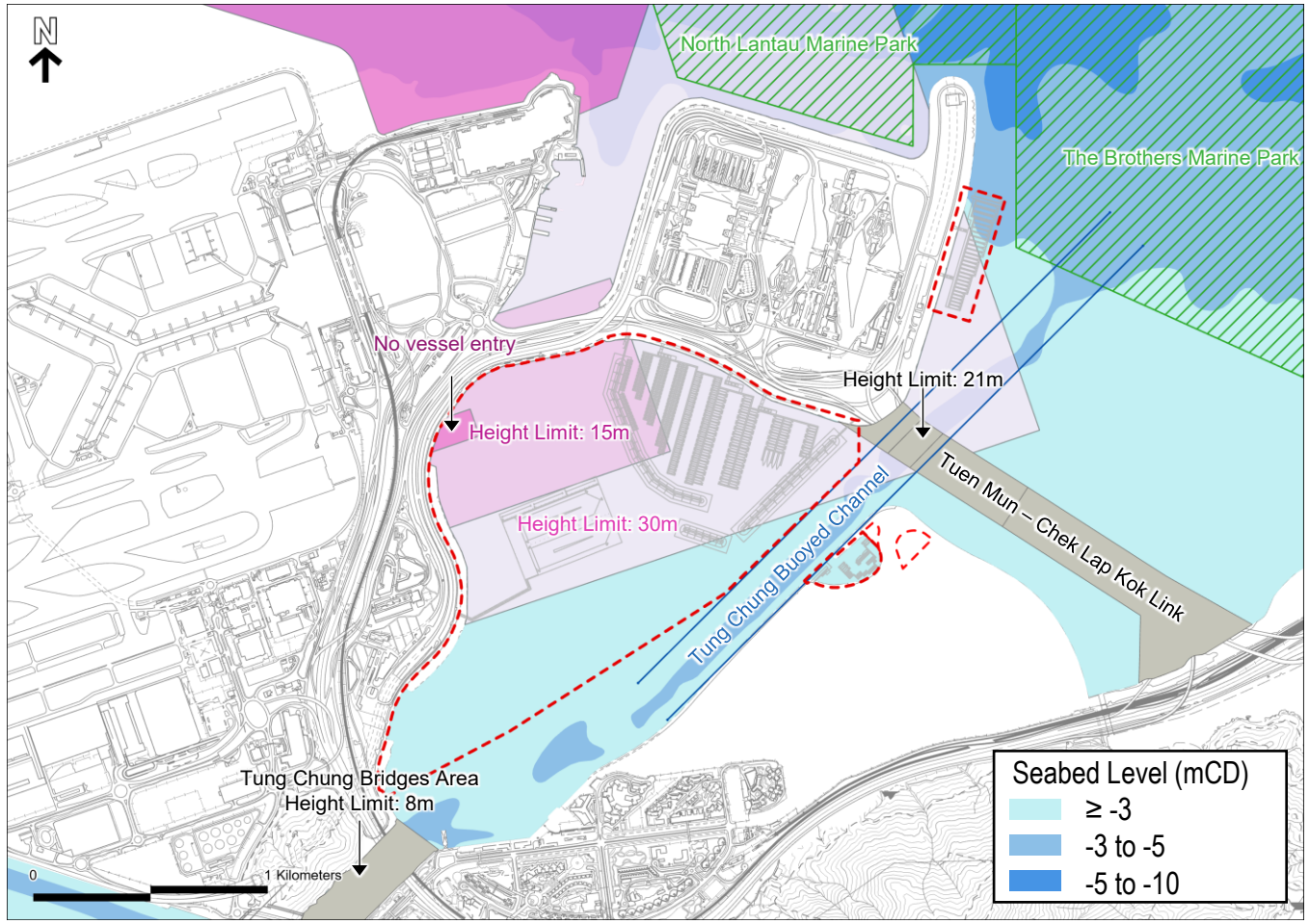
Key Design & Site Selection Rationale

Primary Constraints Considered:

- **Marine parks** (The Brothers & North Lantau)
- **Navigational safety** (Tung Chung Buoyed Channel and HKIA approach areas)
- **Water depth and dredging minimisation**
- **Airport height restrictions and constrained areas**
- **Clearance of marine viaducts** of Tung Chung Bridges and Tuen Mun – Chek Lap Kok Link

Design Philosophy:

- **Avoid marine parks**
- **Use piled deck structures and floating facilities** to minimise seabed loss
- Optimise berth mix and layout based on **Marine Traffic Impact Assessment and Formal Safety Assessment principles**



Selected sites represent the lowest practicable environmental and navigational risk ✓

Environmental Benefits and Achievements

Promotes sustainable and responsible operation for the Marina and Water Park

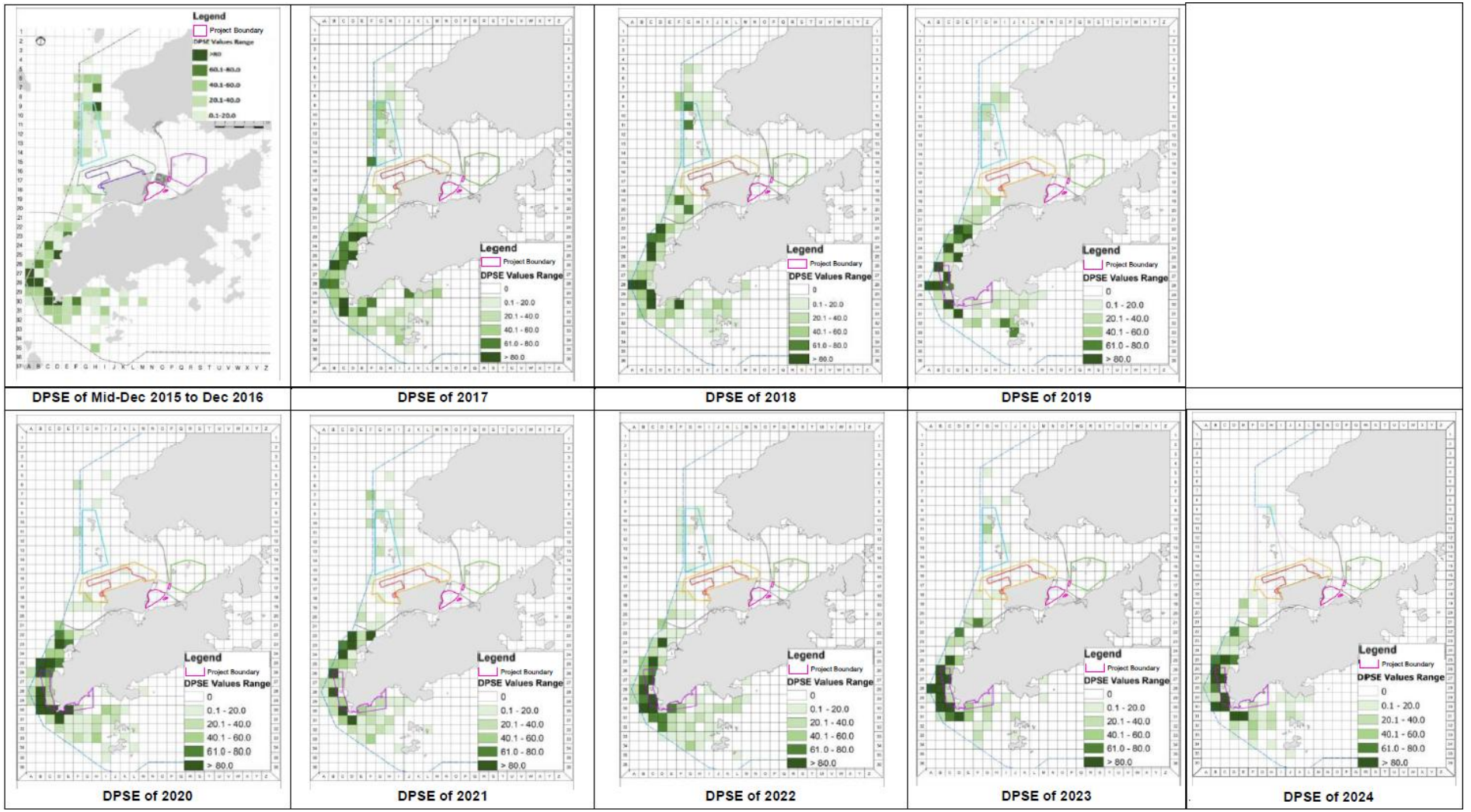
Enhances local marine biodiversity through **eco-shorelines and ecological enhancement measures**

Integrates with TCNTE planning to minimise environmental impacts

Establishes a recreation network to support environmental appreciation and **community well-being**

Avoided Key Habitats of Chinese White Dolphin

- CWDs **mainly distributed in W & SW waters of HK (e.g. Tai O & Southwest Lantau Marine Park)**



Mott MacDonald (2025) Expansion of Hong Kong International Airport into a Three-Runway System Construction Phase Annual EM&A Report No. 9

Avoided Key Habitats of Chinese White Dolphin

Six-month Passive Acoustic Monitoring (PAM) Survey

- Survey and monitor marine mammal using acoustic recorders

Mean Detection Positive Minutes (DPM) per Day

All round detection within 1 km radius

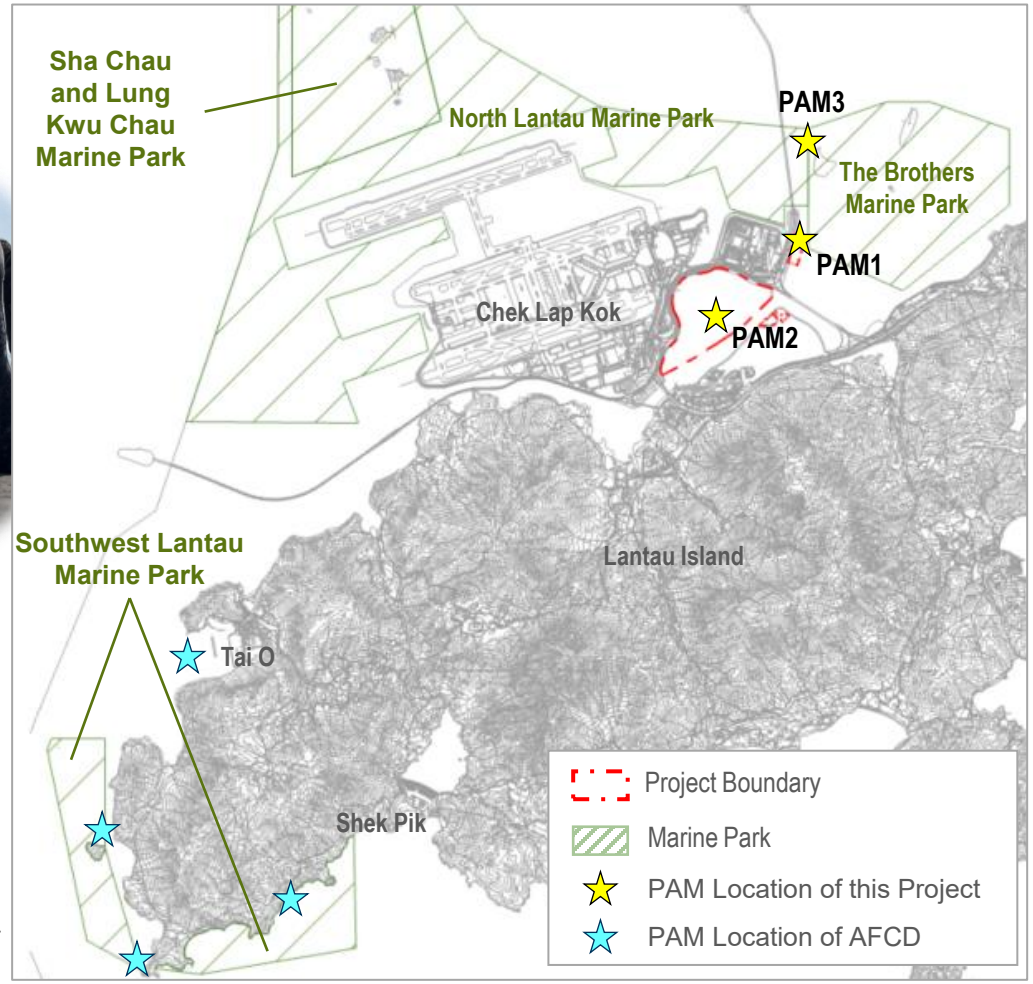
	Tai O	Southwest Lantau Marine Park
	16.12 min	55.42 min

About 110 - 1600 times

	PAM1	PAM2	PAM3
	0.14 min	0.01 min	0.05 min

DPM at the Project Area is much lower than CWD key habitat at Tai O and Southwest Lantau Marine Park

Project Area is not a key habitat for CWD ✓



CONTRACT C24C04
ENVIRONMENTAL IMPACT ASSESSMENT CONSULTANCY SERVICES FOR AIRPORT BAY DEVELOPMENT

香港機場管理局 AIRPORT AUTHORITY HONG KONG

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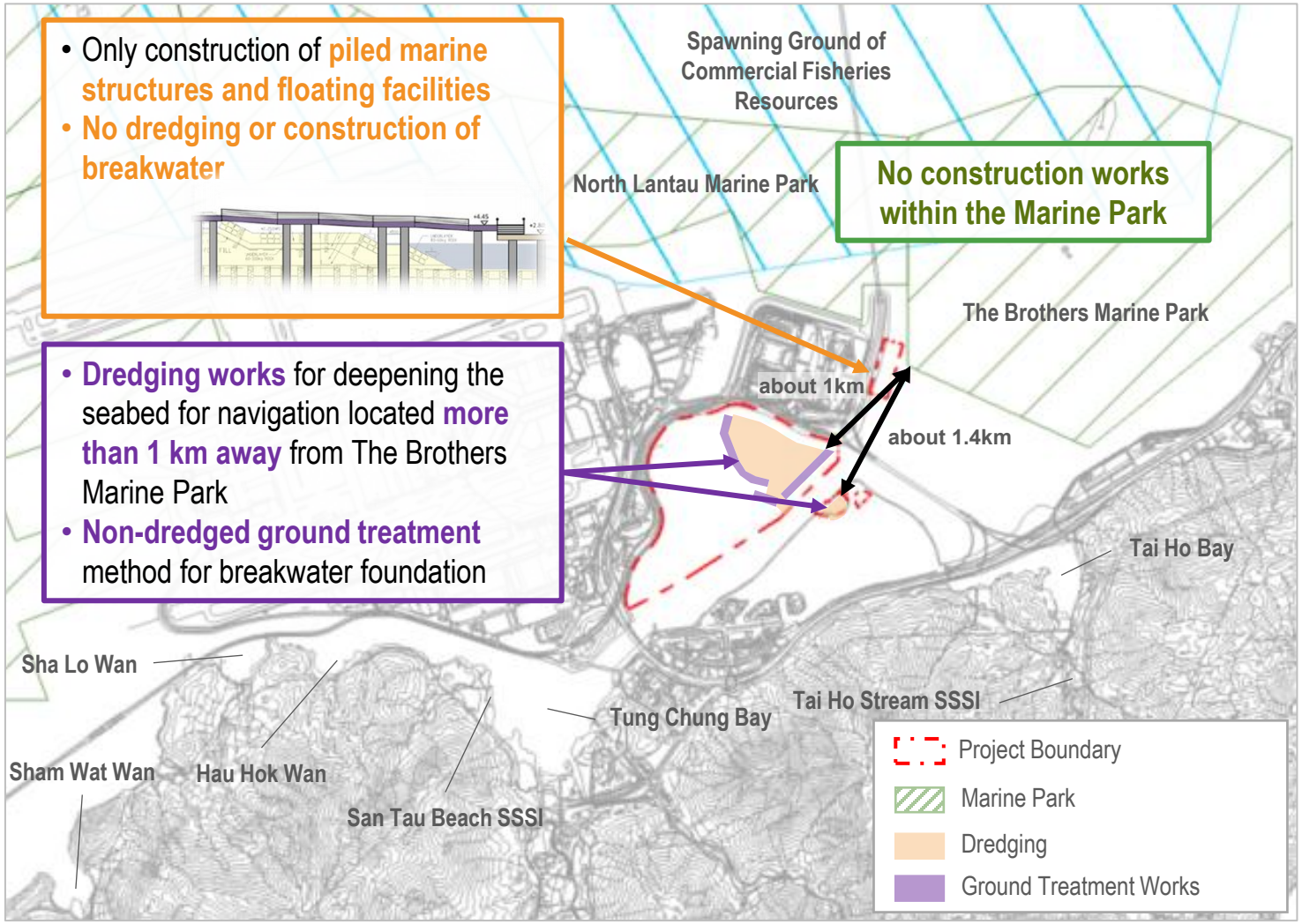
Key Design Measures for Construction Phase



Avoid night-time construction works

Adopt **non-percussive piling**

Adopt **non-dredged ground treatment methods**
(i.e. Deep Cement Mixing or stone columns) for breakwater foundations

Minimise C&D materials generation
by optimising project scale, site selection and construction methodologies

Adopt **prefabricated / pre-cast construction**
components assembled on site after off-site fabrication

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Key Design Measures for Operational Phase

Eco-shorelines as Enhancement Measure

Enrich marine biodiversity and support ecological functions

On-Shore Power Provision

Vessel connected to electricity when berth

Designated Area for Vessel Cleaning and Maintenance

At landside facility at TCE (i.e. Dry Dock Storage and Berth Maintenance)

Proper Collection and Handling of Sewage or Wastewater

No direct discharge to marine environment(e.g. provision of in-slip pump out system for wastewater from yacht)

Key Design Measures for Operational Phase – Eco-shoreline as Enhancement Measures

Eco-shoreline Elements for Consideration

Eco-enhanced concrete blocks

Increase surface complexity, & availability of microhabitats & provide shelter for intertidal and subtidal organisms

Oyster baskets / bags

Offer complex substrates for sessile organisms and support biofiltration by the colonised filter-feeder communities

Precast tidal pools

Provide refugia from desiccation & thermal stress to support the survival of invertebrates & fish

The possible options, locations and potential ecological benefits of the eco-shoreline elements will be further considered and reviewed during the detailed design stage.

Key Mitigation Measures / Preventive Measures for Construction Phase

Water Quality

- **Deployment of silt curtains**
- **Controlled dredging rate and sand blanketing rate**
- **Preventive measures for protecting eco-shorelines at TCE Marina** (e.g. reduction in dredging rate and deployment of additional silt curtain)
- **Spillage response plan**

Marine Ecology

- **Marine mammal watching** by trained obeservers prior to daily marine works (works area enclosed by silt curtains)
- **Construction Vessel Management Plan** with regular routes and Automatic Identification System (AIS)
- **Speed restriction of 10 knots** within the Project area and marine parks for all construction vessels
- **Smart initiatives** (e.g. AI-powered cameras) to support marine mammal watching works

Marine Mammal Watching

Silt Curtain Deployment

Vessel Management & AIS

Spillage Response Plan

Key Management Measures for Operational Phase

Environmental Management Plan for Marina

Vessel Speed and Route Control
Smart monitoring initiatives to reduce impacts on marine parks

Compliance-Linked Booking System
Mandatory registration linking berthing priority with environmental compliance

No Vessel Cleaning / Maintenance and Wastewater Discharge within Marina

On-Shore Power Connection
Reduce emissions from berthed vessels

Code of Marine Mammal Encounters

Spill Prevention and Emergency Response Plan

Environmental Management Plan for Water Park

Boundary Demarcation and Speed Control
Demarcate Water Park boundary and vessel speed control with positioning devices

Prohibit Wastewater Discharge within Water Park

Operational Guidelines for Water Park
Management arrangements including additional preventive measures for Special Events during evening

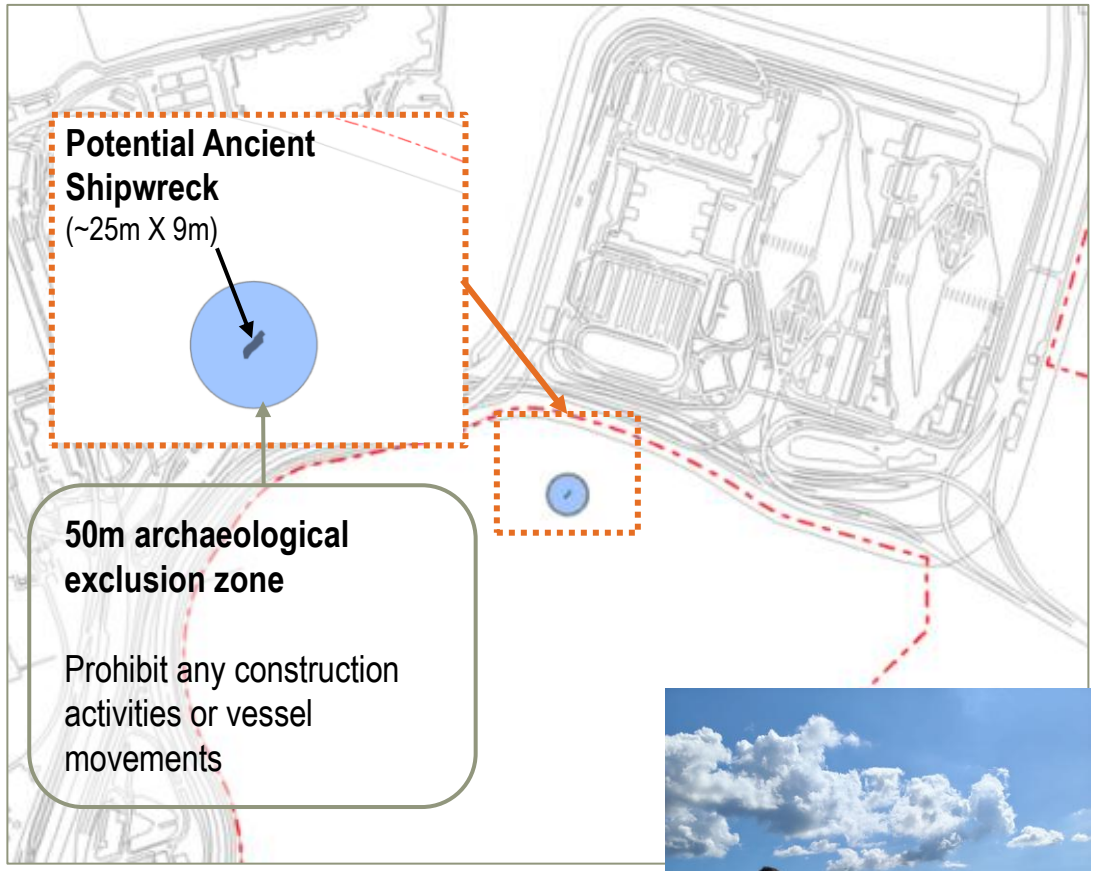
Code of Marine Mammal Encounters

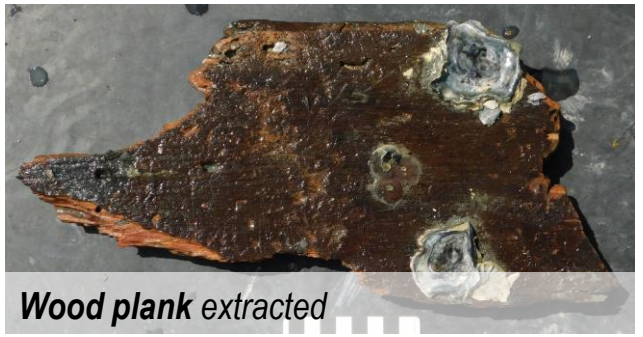
Promotion of Use of Biodegradable and Ocean-friendly Sunscreen

Cultural Heritage

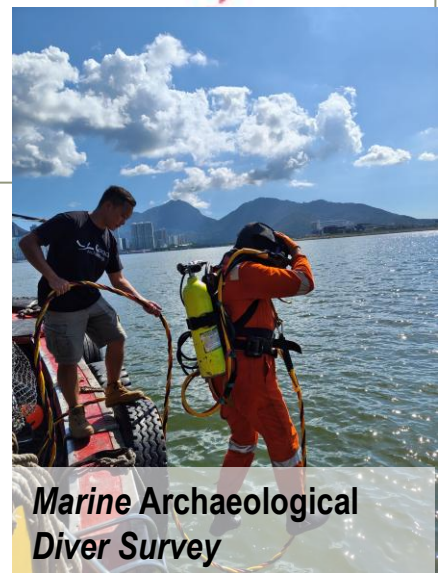
Pre-construction Survey / Investigation

- **Potential ancient shipwreck** identified
- Establish 50m **archaeological exclusion zone**
- **Pre-construction survey / investigation** to be conducted prior to commencement of marine construction works at HKP South Berthing Facility
- **Cultural Heritage Mitigation Measures Plan** to be agreed with AMO



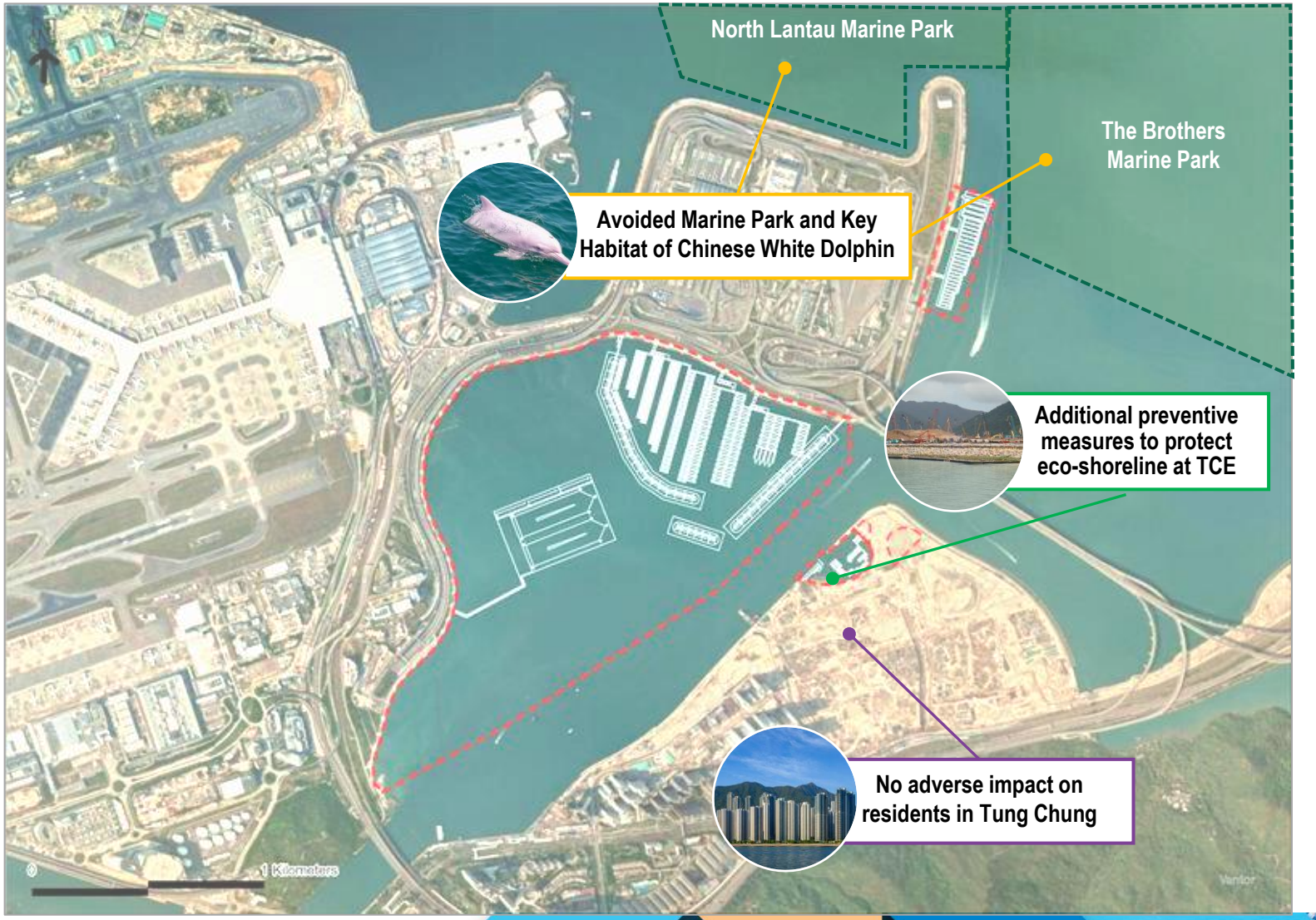


***Wood plank** extracted*



***Marine** Archaeological Diver Survey*

Environmentally Sensitive Areas Protected



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Conclusion

- EIA concludes that **no adverse environmental impacts** are anticipated
- The EIA report is under **public inspection from 30 April 2026 to 29 May 2026**
- The EIA report is available on the **EPD's website** (https://www.epd.gov.hk/eia/en/alpha/aspd.php?id=940)
- Meetings with the **Advisory Council on the Environment (ACE)** after the public inspection period

3RS EM&A Updates

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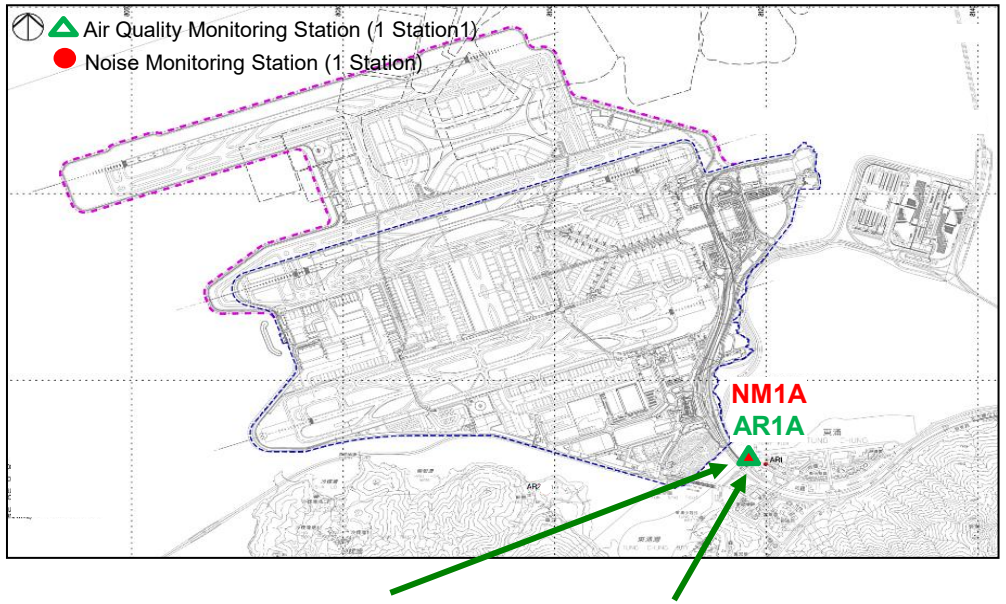
EM&A Monitoring – Air Quality & Noise

Feb to Apr 2026

- **No exceedance** of project-related Action / Limit Level was recorded
- Following full commissioning of the 3RS and the reduction in active construction works, construction-phase monitoring from 1 Jan 2026 was limited to stations AR1A (air quality) and NM1A (noise)



	Feb to Apr 2026
Air Quality Monitoring (1 station)	48 events
Noise Monitoring (1 station)	13 events

Noise Monitoring Station NM1A

Air Quality Monitoring Station AR1A

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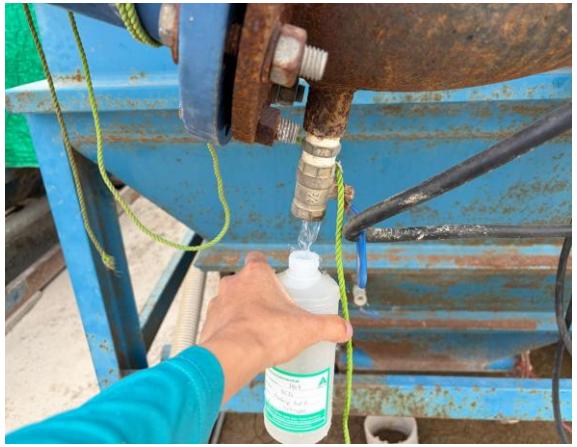
EM&A Implementation

Air Quality Mitigation

Regular water spraying on main haul roads to minimise fugitive dust emissions

Water spraying during breaking activities to minimise dust emissions

Water Quality Mitigation



Water samples are collected for testing to ensure treated wastewater compliance with wastewater discharge requirements

More Measure

Night-time commissioning noise test for fixed noise plants are conducted

Complaints and Enquiries

	2015 (from 28 Dec)	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026 (up to Apr)
Complaint	0	1	7	8	1	10	21	11	12	10	3	2
Enquiry	0	25	16	19	20	9	13	2	13	21	12	5
Total	0	26	23	27	21	19	34	13	25	31	15	7

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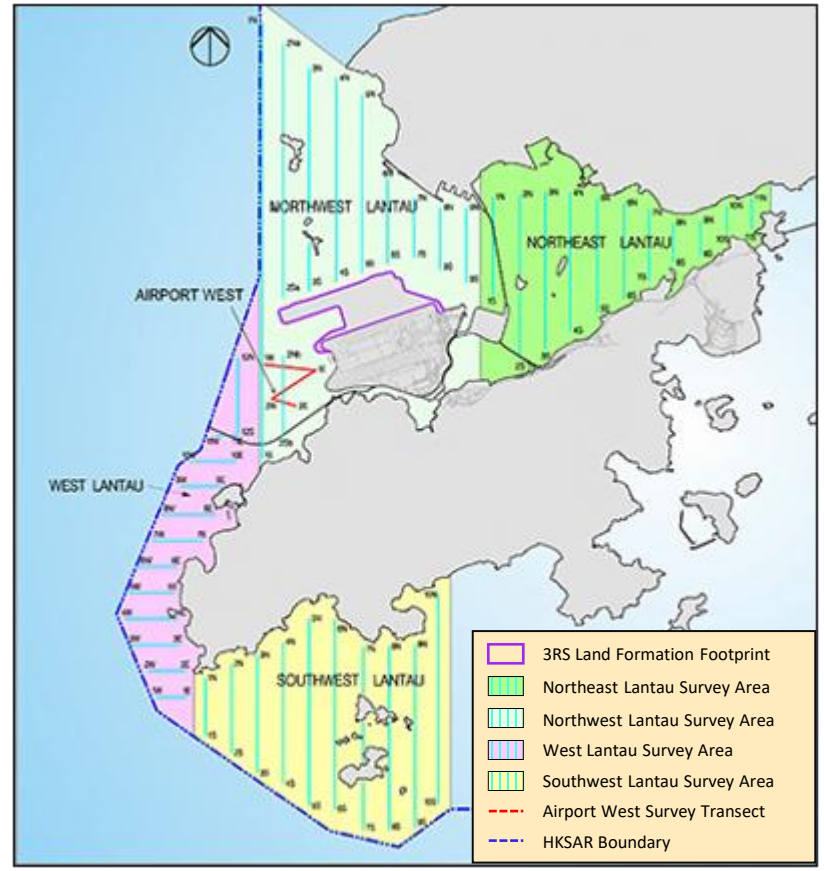
CWD Monitoring – Vessel Line Transect Survey

- 12-month Post Marine Park Designation Monitoring for CWD by vessel-based transect survey were conducted from January to December 2025

Jan – Dec 2025

- 24 rounds of vessel line transect surveys were conducted, covering a total distance of approx 5,353 km
- 166 groups of CWDs with 466 individuals were sighted
  - Majority of CWD sightings (70%) were recorded in West Lantau (WL) waters
- Each group of CWDs sighting ranged from 1-15 individuals, with average group size of approx 2.8
  - Including a total sighting of 28 times with the presence of mother-and-calf pair(s)



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Marine Ecology and Fisheries Enhancement Strategy

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Holistic Monitoring (2025 – 2030)

(Photo: 17 Jan 2026)

Objectives

- To assess the effectiveness of North Lantau Marine Park and AA's enhancement measures
- Focus on potential rebound in Chinese White Dolphin usage of North Lantau waters

Chinese White Dolphin monitoring

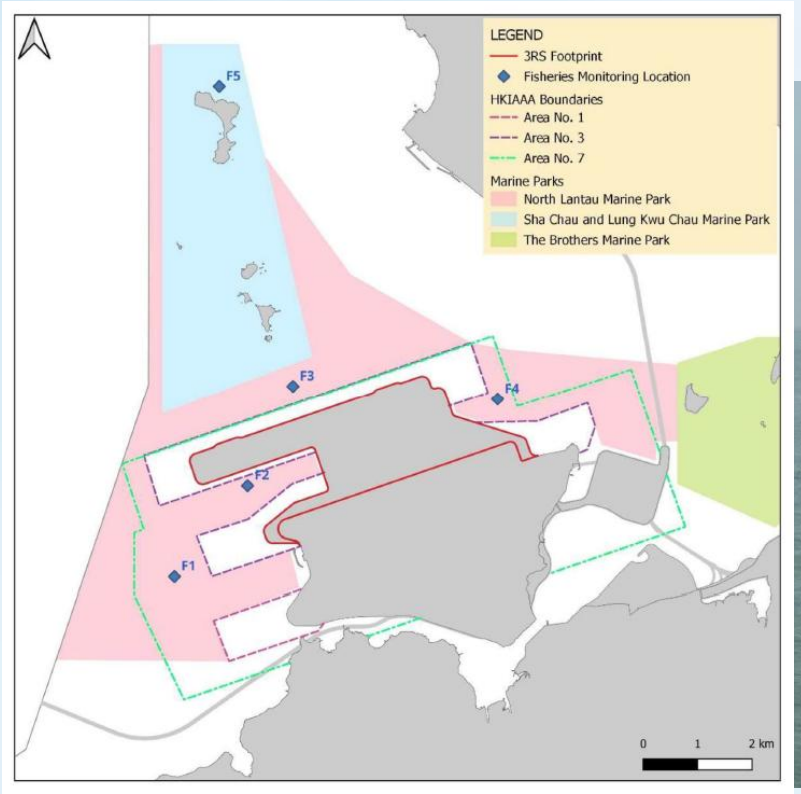
- Small vessel line-transect survey
- Passive acoustic monitoring

Intertidal and subtidal surveys

- Eco-shoreline
- Artificial reefs and shellfish reefs

Fish monitoring

- Long-lining and gillnetting
- Fish sonar



Eco-tours that Inspire, Educate and Engage

23
School Tours
887 students & teachers

14
Stakeholder Tours
488 participants

Positive Feedback
widely received

Overwhelming Registration
for every eco-tour

Re: [Invitation] Dolphin Watching Eco-Tour at North Lantau Marine Park【邀請函】北大嶼海岸公園觀豚生態遊

From 3E同學會
To eco.tour@env.threerunwaysystem.com
Copy xiaohei@xiaohei.net, eddiesung@live.com, yuwahkeung@gmail.com
Date Today 10:18

Summary Headers Plain text

Dear iris,

我們的活動在2026.03.21 完滿完成，十分感謝當日的安排。

看到每一位同學在此次的旅途上聚精會神地學習和對發現中華白海豚的興奮樣子，我知道這次活動將會在他們心目中成為忘記不了的活動。

跟據和老師的談話，知道學校當日有4組同日舉行的外遊活動，然而老師為我們安排的這一組35位同學都是學校中比較低收入或領綜援的家庭子女，他們絕多數都沒有乘坐過遊艇或看過中華白海豚。所以是次的活動也是很好的學習體驗。

希望機管局可以持續將是次充滿教育意味的活動，繼續向教育界受眾推廣，冀望能將保護香港海岸生態及保育香港的中華白海豚像種子植根在香港未來主人翁的心中。

謝謝您！


Interactive Q&A


EXTRA Mile eco-tour

Second series of eco-tours planned this year to further promote marine and CWD conservation

Transforming sustainability education into meaningful, memorable experiences

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Marine Ecology Enhancement Fund (MEEF) & Fisheries Enhancement Fund (FEF)

- AAHK injected **HK$400M** in late 2016
- MEEF & FEF granted over **HK$112M** to support **82 projects**
- Funded Organisations include:

Ecological and Genetic Assessment of Marine Clams in Hong Kong

Fishery Landscape and Population Health of a Depleted Seascape

Aquaculture Community Outreach and Promotion Program – The Aquaculture

Survey Program for the Production of Fishing Vessels in Hong Kong Waters

Waste Management

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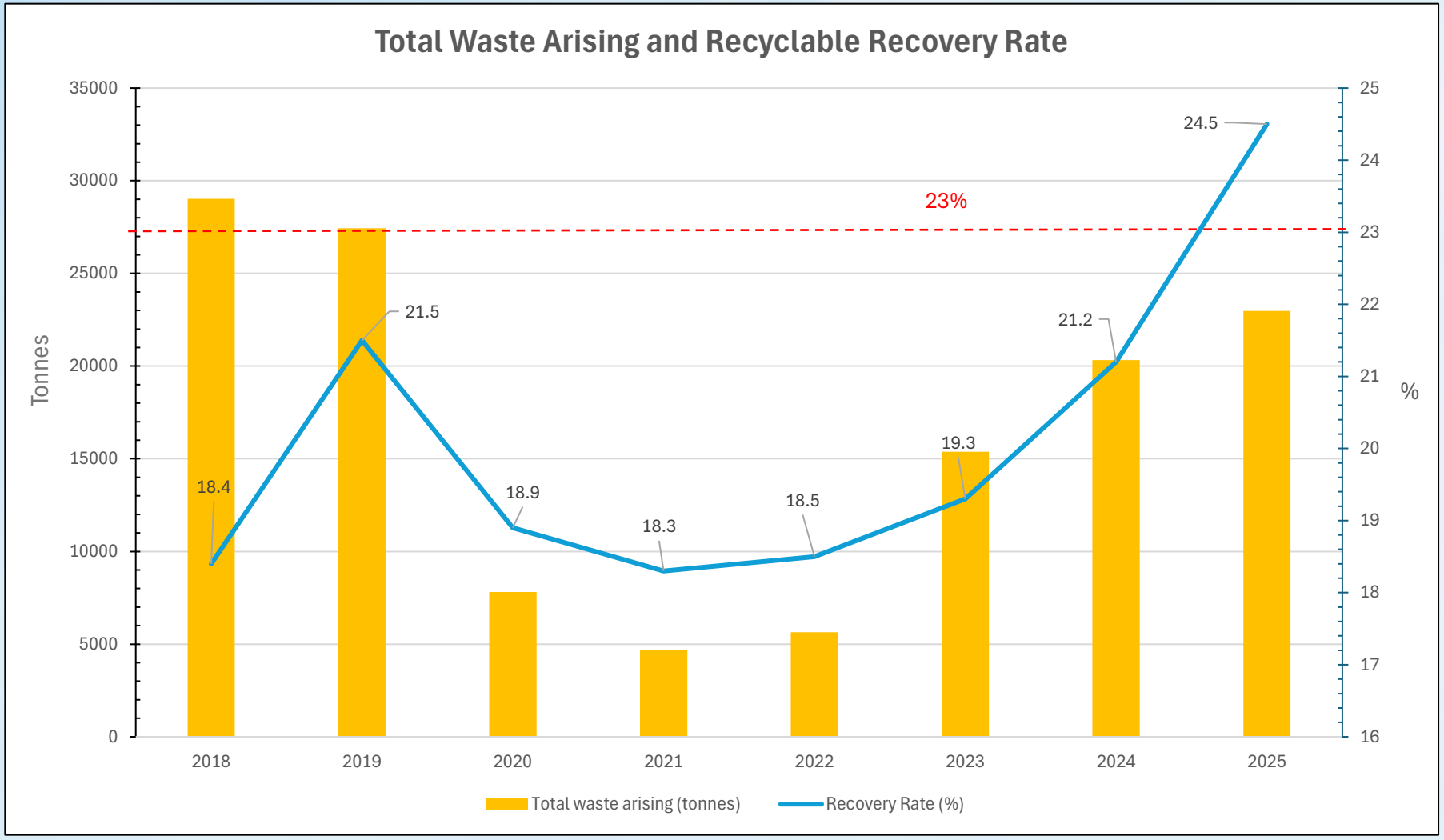
Waste Recycling Target



Target (by 2025)

Recyclable Recovery Rate

23%

(25% increase compared to 2018 baseline)

Target achieved

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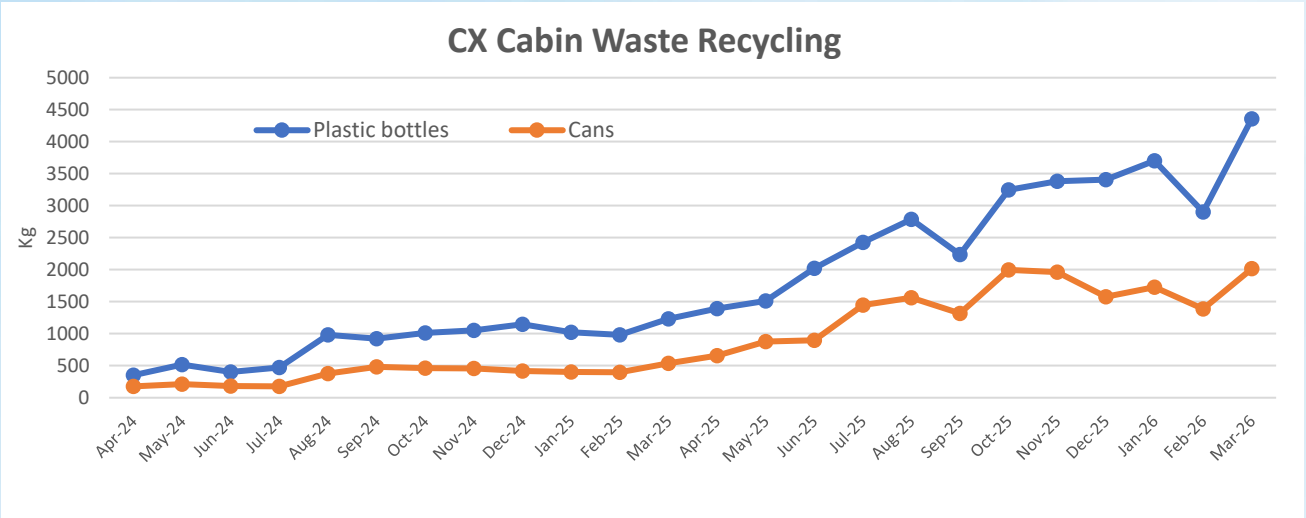
Cabin Waste Recycling Programme



Working with Cathay Pacific Airways (CX) to collect and separate plastic bottles and cans from inbound flights

Programme – ongoing / enhancement works
Introduce machine to enhance on-site cabin waste separation capacity
Facilitate HK Express to explore cabin waste recycling at HKIA
Promote cabin waste separation programme to other airlines through local airline committee

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Smart Waste Bins & Recycling Bins

Objective

Introduce smart recycling technology

Smart bins for food waste collection

Trial use of smart bins for food waste recycling

Target tenants: F&B and Airline Loungs

Features of the trial:

- IoT - on-site monitoring (e.g., ID, time, weight, location)
- Cloud platform - real-time access of data and reports

Objective

Explore AI recycling experience for staff and passenger

AI-powered waste sorting bin

Reverse vending machine

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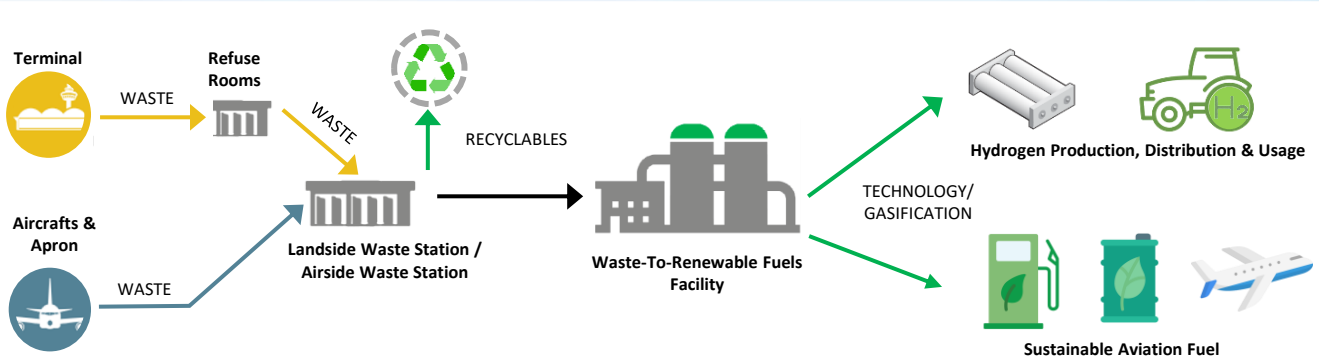
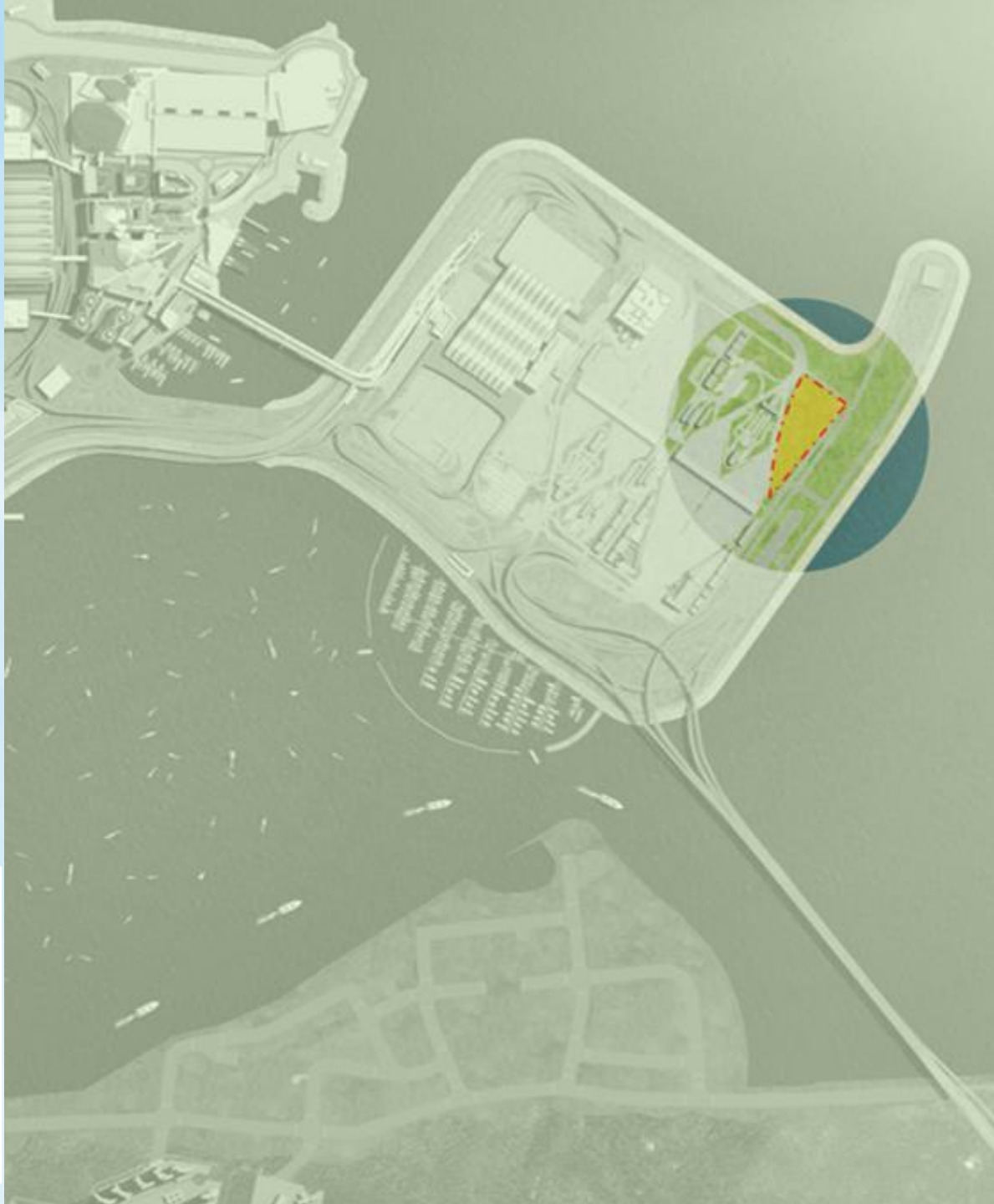
Waste-to-Renewable Fuels

Timeline (2026)

2026 Q2	PQ exercise
2026 Q3	Early Contract Involvement
2026 Q3	Tender exercise
2026 Q4	Contract award





Weather Preparedness

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HKIA Weather Preparedness Exercise “Summer Blow 2026”

April 2026

Exercise Scenarios

1. AEC Activation
   Airport Emergency Centre
2. Airfield Typhoon Contingency
3. Crowd Management
4. FIS Disruption Handling
   Flight Information System
5. FRCS Activation
   Flight Rescheduling Control System
6. BHS Contingency
   Baggage Handling System
7. Landside Transport Contingency

Exercise Scenarios
1) Airport Emergency Centre (AEC) Activation

AEC Registration

AEC Full Activation

AEC was activated to facilitate effective communication and coordination among all parties – response units including AAHK, relevant Govt departments, airlines, passenger and ramp handling agents, and other airport business partners

40

Exercise Scenarios
2) Airfield Typhoon Contingency

Retraction and tie-down of airbridges

Airbridge tie-down operations and restoration works were performed to ensure safety on the apron

Exercise Scenarios
3) Crowd Management (T1 & T2 Landside)

T1 Landside



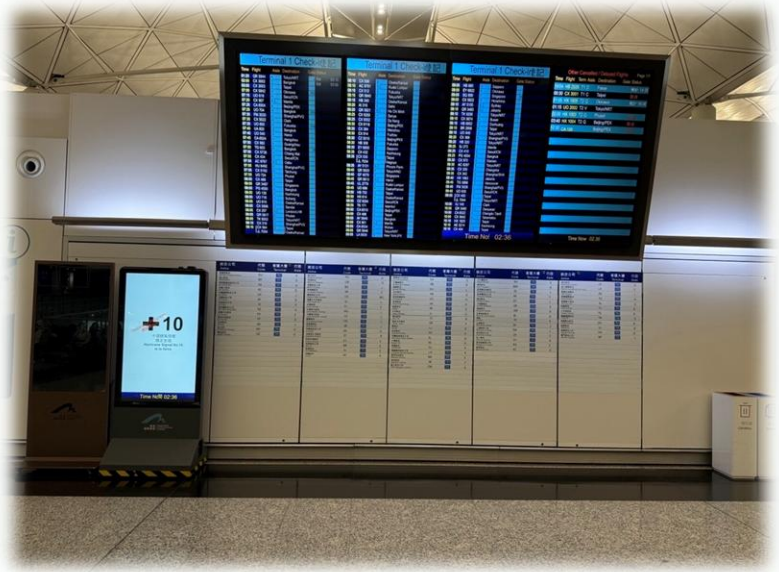

T2 Landside




Crowd management drills were conducted at both Terminal 1 and T2 during the exercise

42

Exercise Scenarios
4) Flight Information System (FIS) Disruption Handling



Terminal 1 Typhoon Display

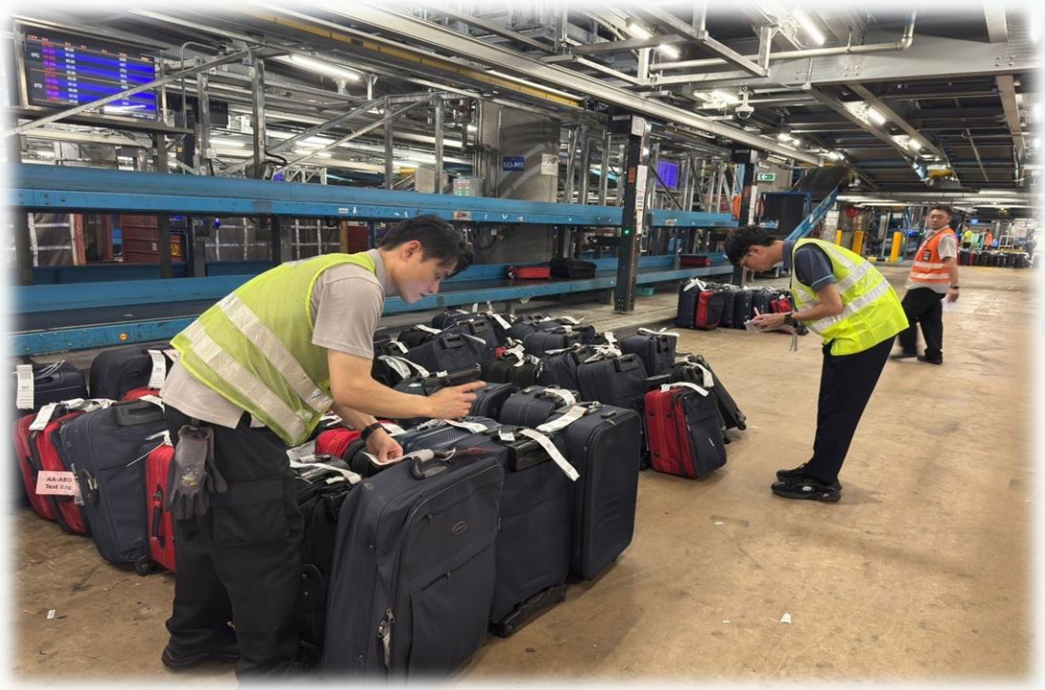
Band of Ten (Terminal 2)

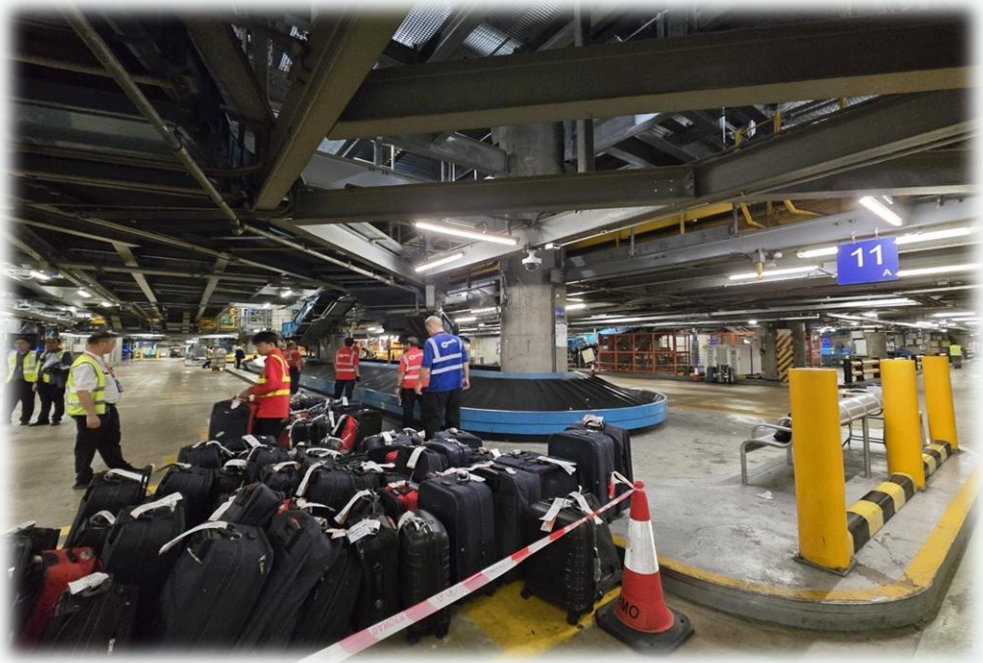
Information on FIS was actively updated

Exercise Scenarios
5) Flight Rescheduling Control System (FRCS) Activation

FRCS was implemented to plan for the orderly resumption of flight services

Exercise Scenarios
6) Baggage Handling System (BHS) Contingency





Contingency baggage handling arrangements were implemented to manage baggage overflow

Exercise Scenarios
7) Landside Transport Contingency

Activated the Taxi Queue Ticket System & coordinated land transport to ensure smooth passenger departures as operations gradually resumed

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Questions & Comments?

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Thank you

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