

v1d



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

15th Professional Liaison Group Meeting

5 February 2026

Agenda

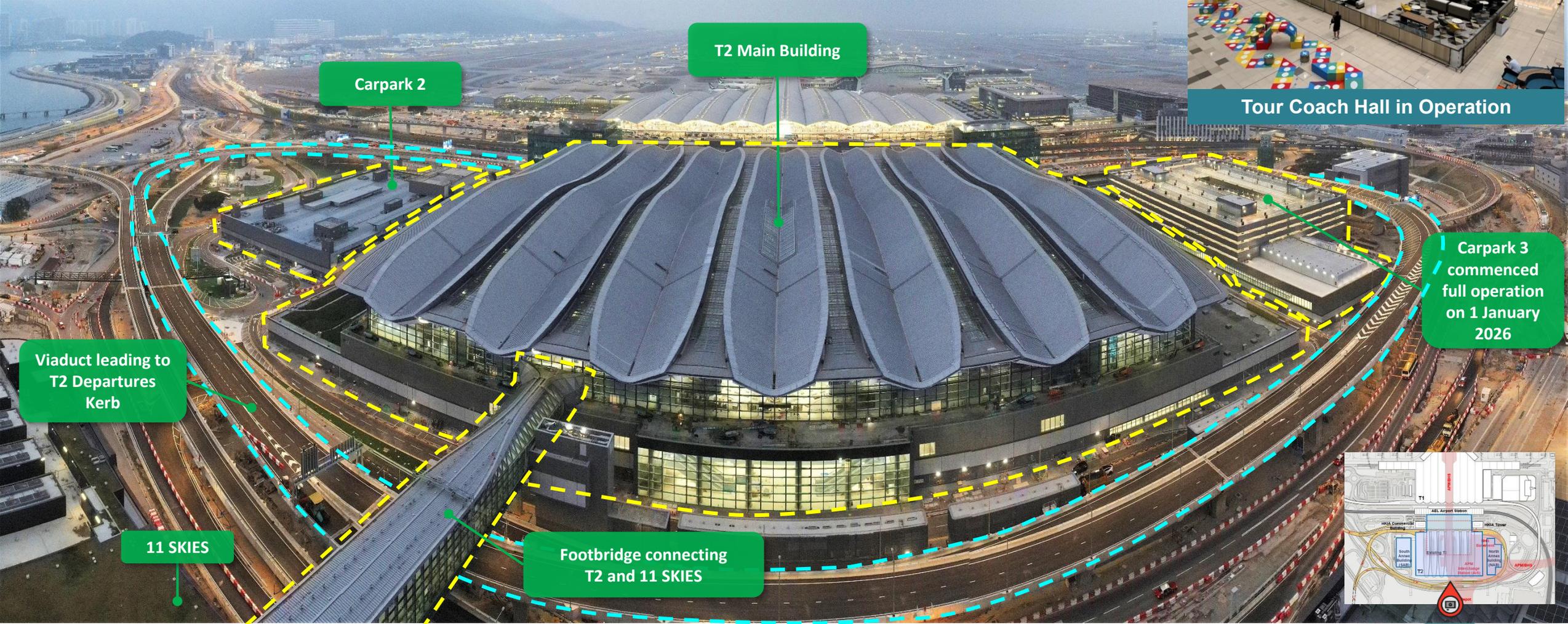
1. Update on 3RS Project and Other Airport Development
2. 3RS EM&A Updates
3. Marine Ecology and Fisheries Enhancement Strategy
4. Waste Management
5. Climate Resilience
6. Other Updates



Update on 3RS Project & Other Airport Development



Expanded Terminal 2 (T2)



Tour Coach Hall in Operation

Carpark 3 commenced full operation on 1 January 2026

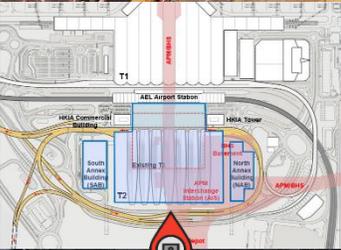
Viaduct leading to T2 Departures Kerb

11 SKIES

Footbridge connecting T2 and 11 SKIES

T2 Main Building

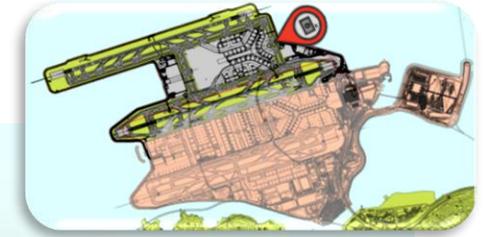
Carpark 2



(Photo: Dec 2025)

- Tour Coach Hall commenced operation on 23 September 2025.

Terminal 2 Concourse (T2C)



(Photo: Dec 2025)

- T2C has achieved full weather-tightness.

Autonomous Car Parks

- “Park & Fly” and “Park & Visit” car parks
- Advanced automated parking system with full automation
- Phase 1: 3,000 spaces; Full build-out: up to 6,000 spaces



"Park & Fly" Car Park

- Commissioned on 15 November 2025
- Facility comprises five storeys, equipped with an automated parking system
- For non-commercial vehicles from Guangdong Province and Macau. Pre-booking is required.
- Initial phase: approx. 1,800 parking spaces will be provided, including:
 - Automated parking spaces for transfer use
 - Pick-up and drop-off parking spaces for passenger transport
- Upon full development, a total of 3,000 parking spaces will be provided



“Park & Visit” Car Park



- Connected to the Hong Kong Port Passenger Clearance Building of the Hong Kong-Zhuhai-Macao Bridge
- Available for advance reservation by drivers from Guangdong and Macao
- After parking, passengers may walk to the Hong Kong Port of the Hong Kong-Zhuhai-Macao Bridge to complete immigration clearance, then transfer to other modes of transport
- Approx 1,000 parking spaces
- Expected to commence operation in 2026

HK's First Autonomous Public Transportation System



Airportcity Link

Autonomous vehicle test run in progress



Airport Tung Chung Link

Works commenced progressively since end-2025; completion targeted by end-2028; trial operations in 2029



Airportcity Link

- A dedicated vehicular flyover with integrated pedestrian walkways connecting the Hong Kong-Zhuhai-Macao Bridge Hong Kong Port and the Airport Island
- Autonomous vehicle test run is in progress



Airportcity Link

SkyPier Terminal Bonded Vehicular Bridge

Hong Kong Port Station



SkyCity Station



Airport Tung Chung Link

- Extend Airportcity Link autonomous transportation system to Tung Chung Town Centre
- 3.8 km, HK Port/SkyCity to Tung Chung Town Centre, journey time 8-10 mins
- Construction commenced in phases from end-2025, with completion targeted by end-2028 and trial operations starting in 2029

Integration with Airportcity Link as one transportation system



Airport Tung Chung Link – Tung Chung Station



Airport Tung Chung Link – Tung Chung Station

Now



Artist's impression





Luxury Hotel

Art & Valuables Storage

AsiaWorld-Expo 2

AsiaWorld-Expo 1

Marine Resort

11 SKIES

Terminal 1

Terminal 2

SkyPier Terminal

SkyPier Terminal Bonded Bridge

Passenger Clearance Building

Park & Visit

Airport Tung Chung Link

Piazza

Airport City Cove

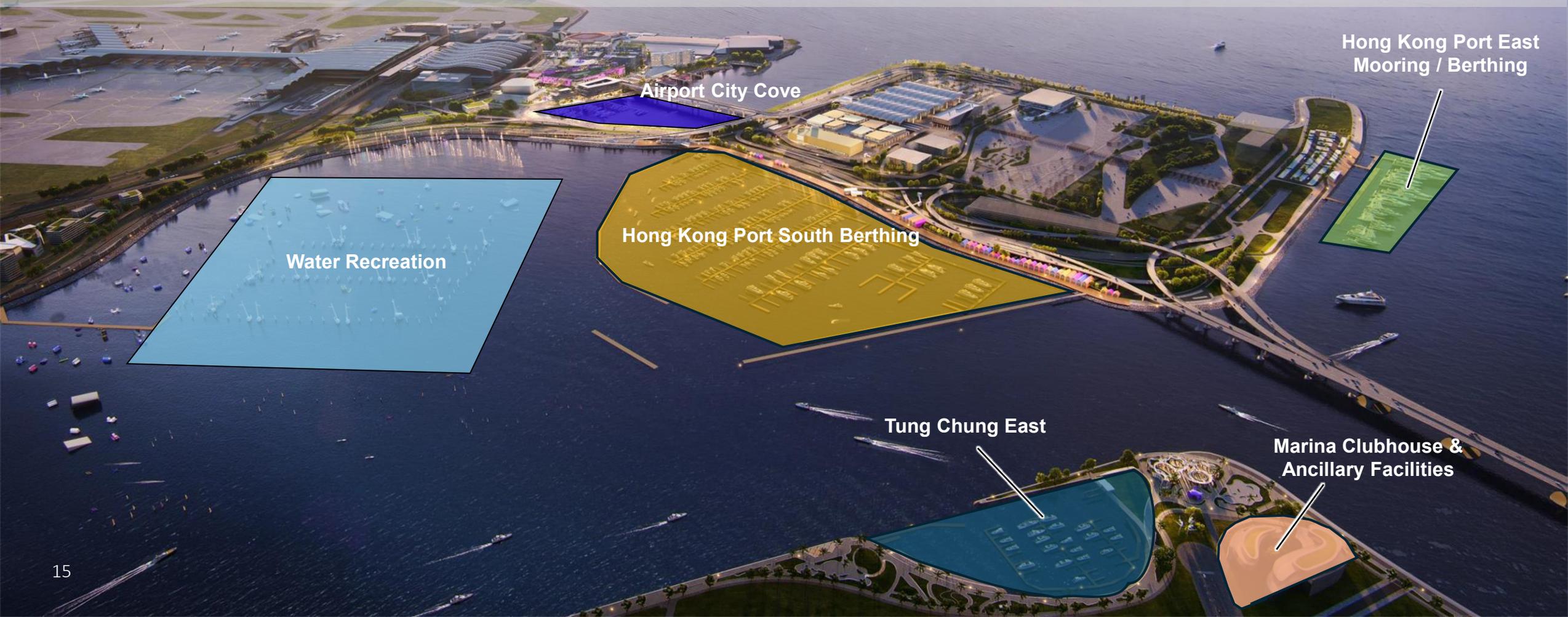
Water Recreation

Promenade

Airport Bay Marina

Airport Yacht Bay

- Conducting Environmental Impact Assessment for Airport Yacht Bay, anticipated completion by end 2026



Airport Yacht Bay

- Relevant construction works include:
 - Dredging
 - Foundation enhancement and breakwater construction
 - Shoreside connection and floating pontoon
 - Foundation and superstructures for landside facilities



3RS EM&A Updates

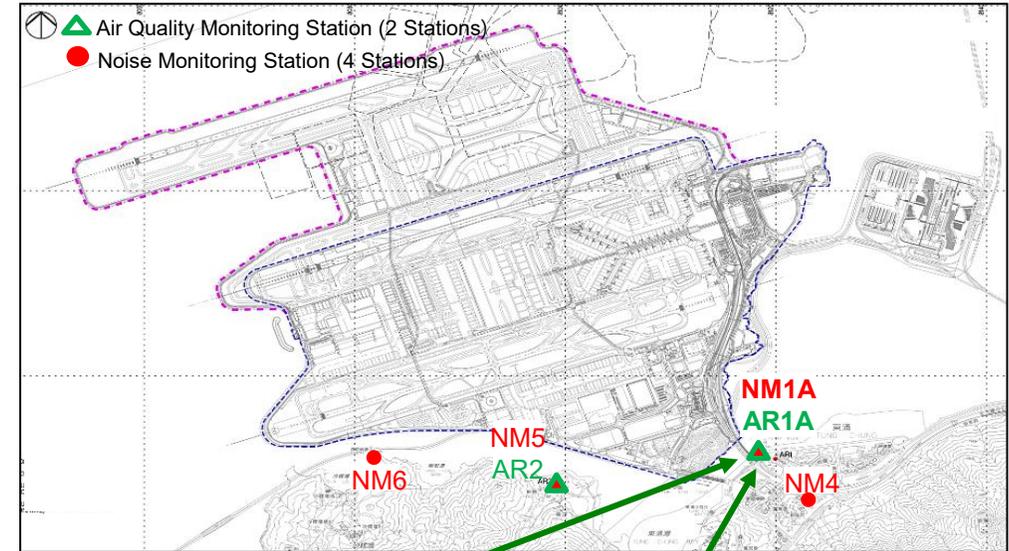


EM&A Monitoring – Air Quality & Noise

May 2025 – Jan 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)

	May 2025 – Dec 2025
Air Quality Monitoring (2 stations)	384 events
Noise Monitoring (4 stations)	210 events
	Jan 2026
Air Quality Monitoring (1 station)	15 events
Noise Monitoring (1 station)	4 events



Noise Monitoring Station NM1A



Air Quality Monitoring Station AR1A

EM&A Implementation

Air Quality Mitigation



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



Wheel-washing facilities are set up at site exits



Fully enclosed conveyor belt and mixing tower for concrete batching



Automatic water sprinklers at stockpiling areas to minimise fugitive dust emissions

EM&A Implementation

Water Quality Mitigation



Wastewater is treated at the Wastewater Treatment Facility prior to discharge to ensure regulatory compliance



Outfall inspections are conducted to ensure no untreated muddy water is discharged into the sea

Noise Mitigation



Noise insulation materials are provided to mitigate noise impact

More Measures



Recycling of used metals



Chemical spillage drills are conducted regularly

Complaints and Enquiries

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

CWD Monitoring – Vessel Line Transect Survey

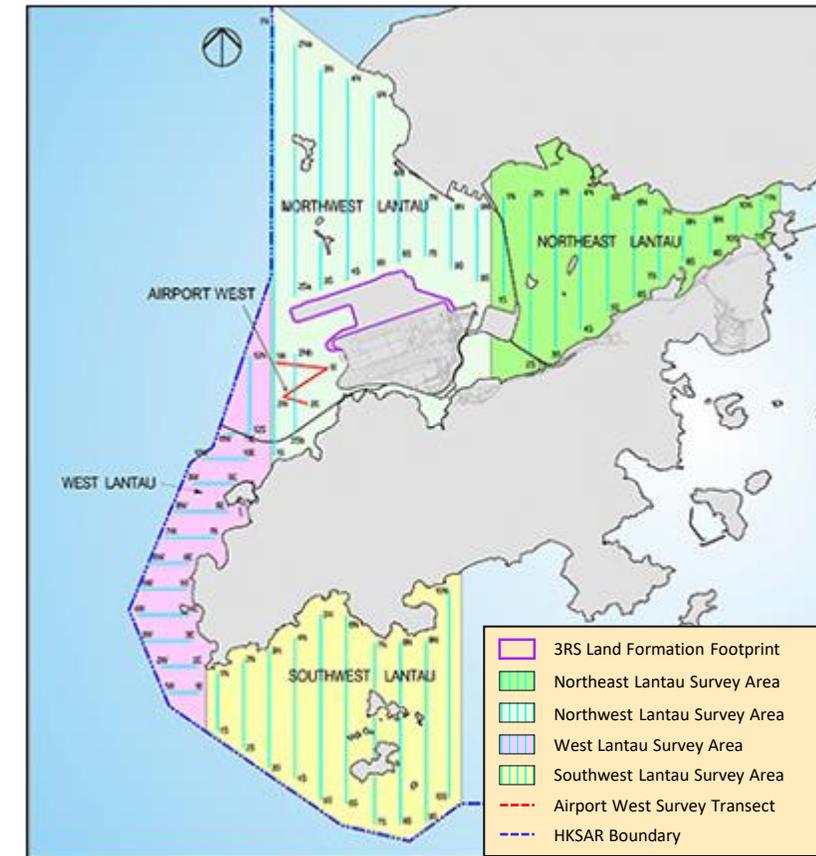
According to the Updated EM&A Manual, the final 2 phases of EP-required CWD monitoring are completed.

- 12-month Post Construction Phase Monitoring completed: Jan-Dec 2024
- 12-month Operation Phase / Post Marine Park Designation Monitoring completed: Jan-Dec 2025

	<u>Jan – Dec 2024</u>	<u>Jan-Dec 2025</u>
Rounds of vessel line transect surveys conducted	24	24
Total distance covered	5,391.2 km	5,352.7 km

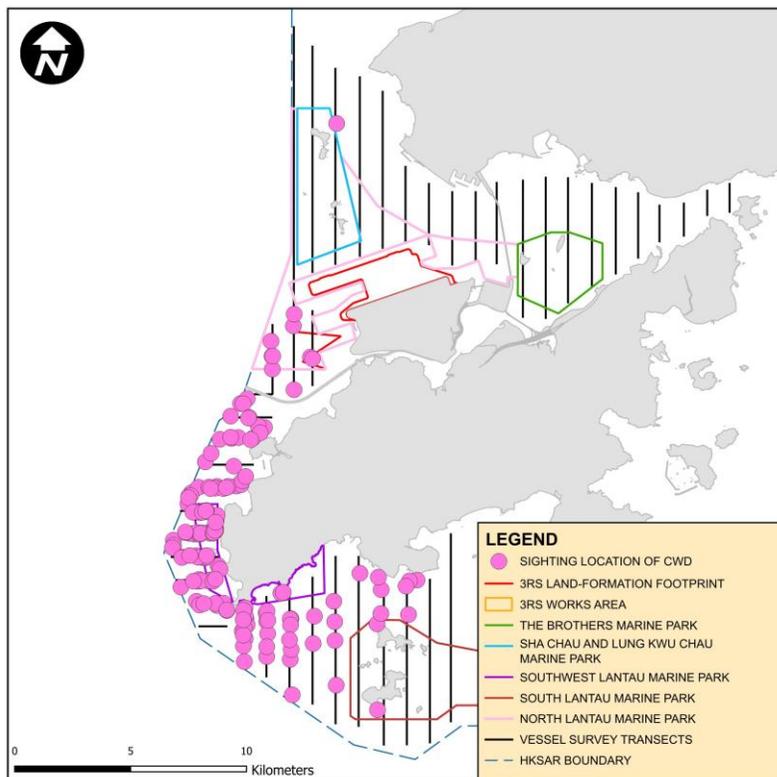
Observations:

Groups of CWDs sighted	151	166
Number of CWDs sighted	490	466
Frequent Locations	WL (from Tai O to Fan Lau); SWL (near Fan Lau)	WL (from Tai O to Fan Lau); SWL (near Fan Lau)
Mother and Unspotted Calf	5 pairs	10 pairs
Mother and Unspotted Juvenile	33 pairs	25 pairs

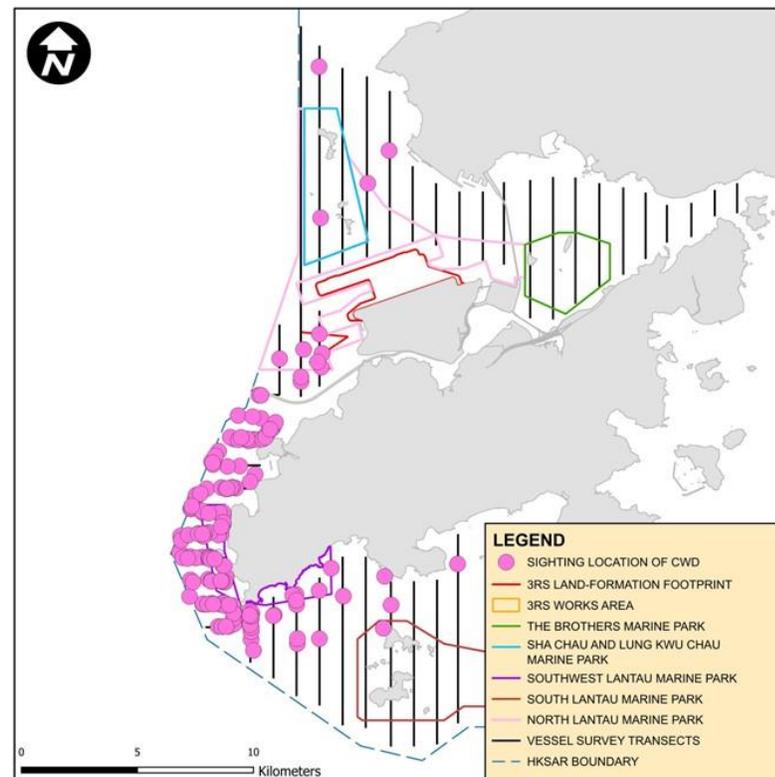


Sighting Locations of CWD

Jan-Dec 2024



Jan-Dec 2025





Marine Ecology and Fisheries Enhancement Strategy

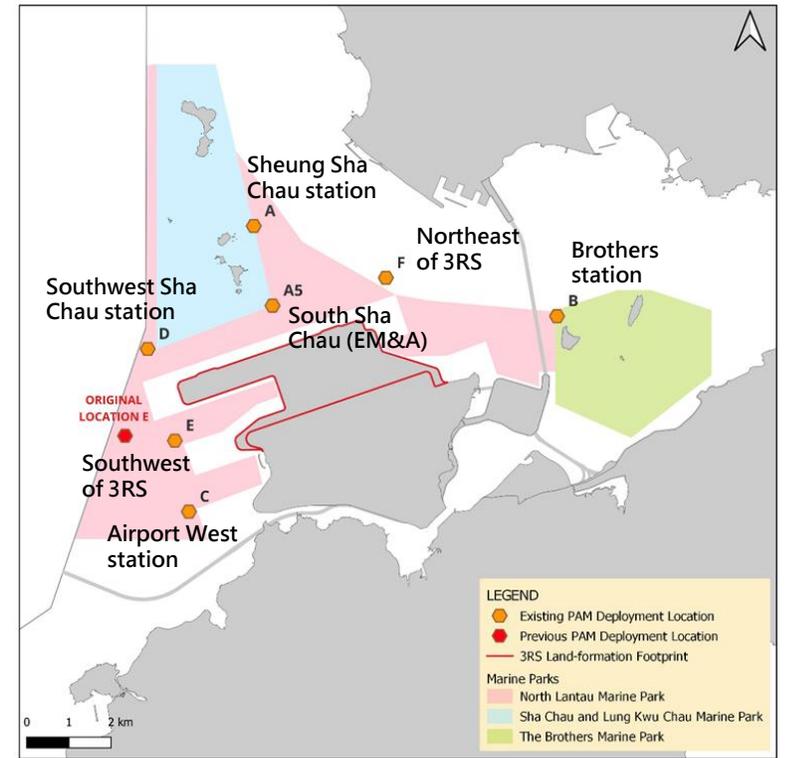


CWD Rebound Survey

- Additional initiatives undertaken by AA to supplement the regular CWD monitoring under EM&A since 2020.
- To collect daytime and night-time CWD data round the clock for supplementing the analysis of CWD usage of the Northern Lantau waters for the review of potential rebound.

Passive Acoustic Monitoring (PAM)

- PAM devices (F-PODs) have been deployed underwater to record and detect echolocation clicks of CWD.
- F-PODs were deployed at 4 locations in 2020, increased to 6 locations in 2022 and further increased to 7 locations since 2024.
- The monitoring area covers the North Lantau areas including the North Lantau Marine Park (NLMP).
- Monitoring will be continued for coming 5 years as part of the SMART goals for NLMP.

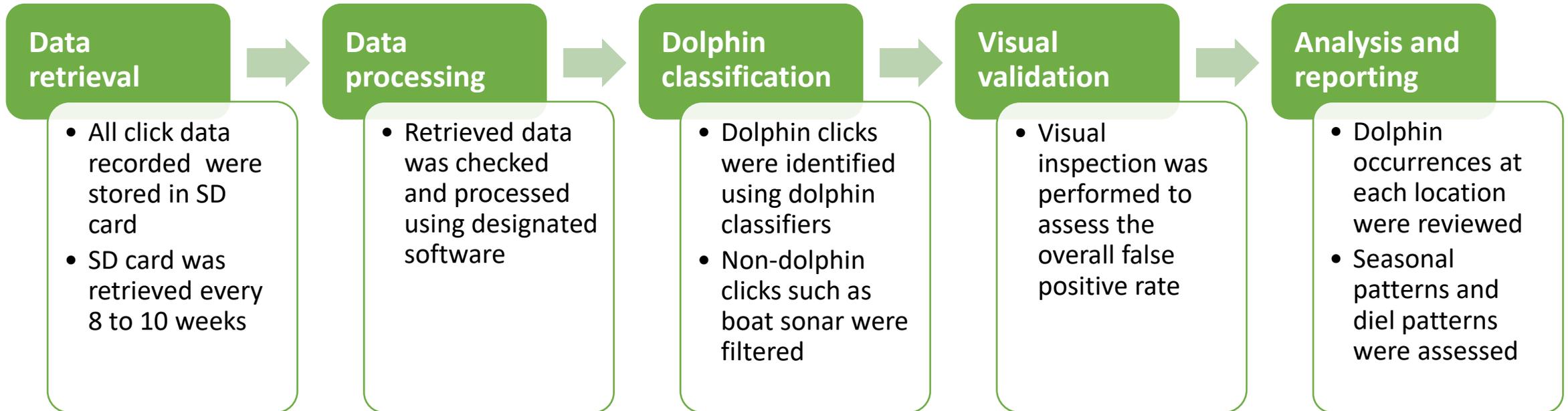


Photos of PAM device set-up and regular maintenance

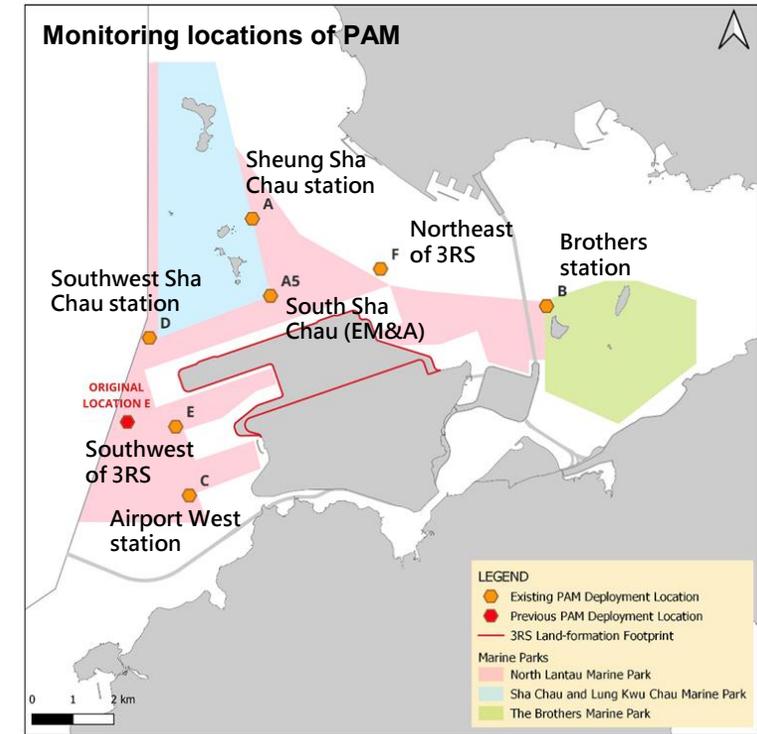
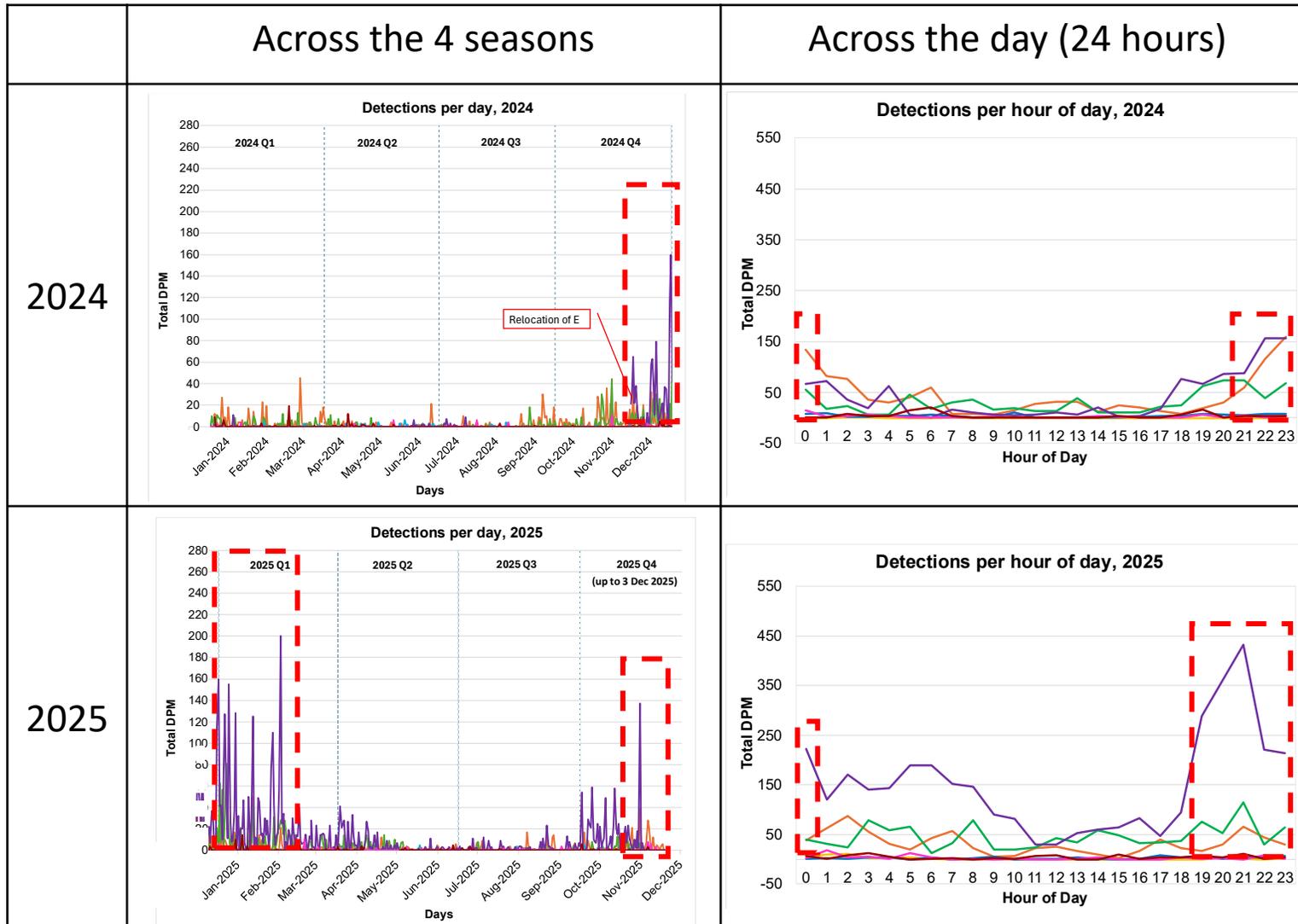


CWD Rebound Survey

Methodology



CWD Rebound Survey

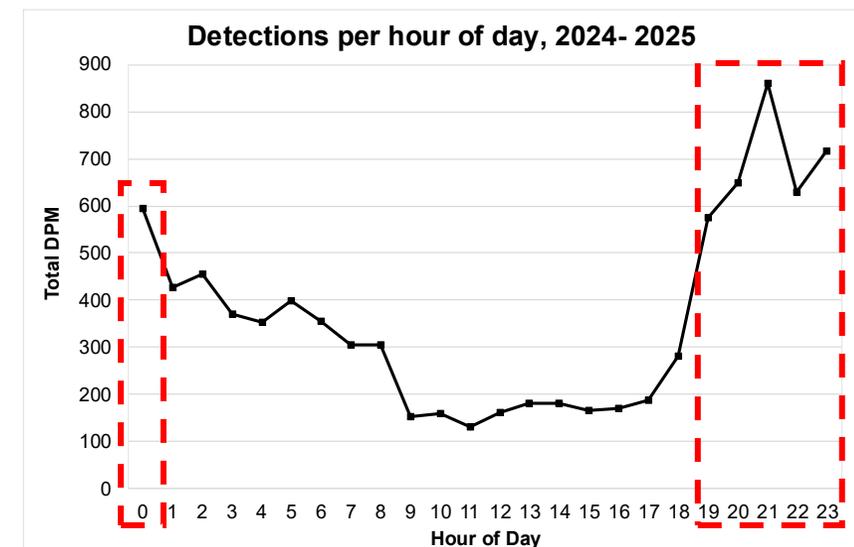
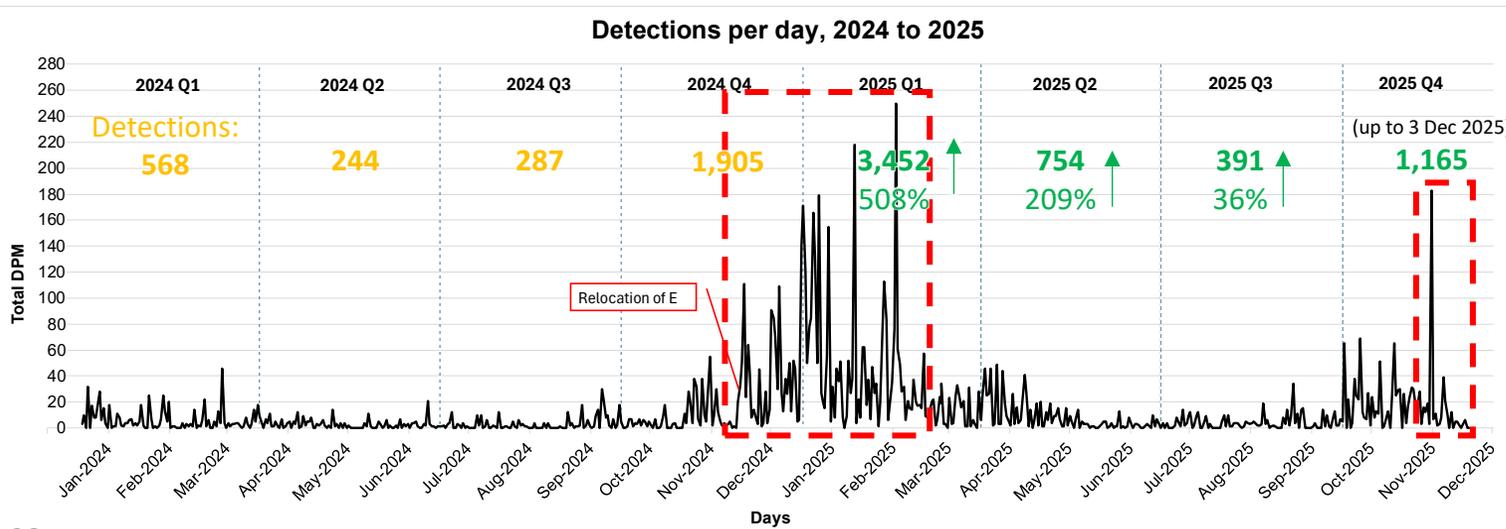
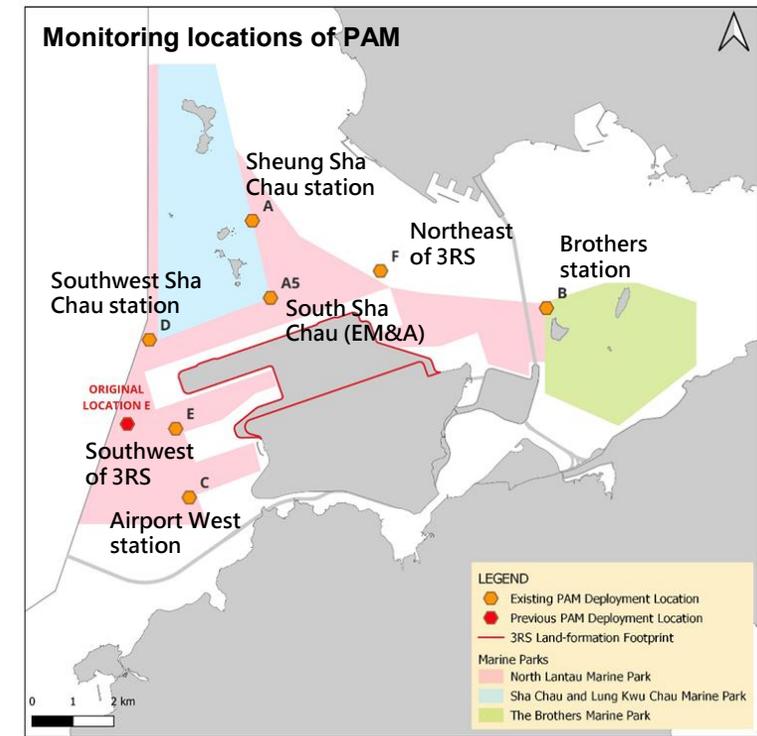


— A-SSC — B-BROS — C-AW — D-SWSC — E-SW3RS — F-NE3RS — A5-SESC

CWD Rebound Survey

Passive Acoustic Monitoring Findings (2024 –2025)

- CWDs detected at all 7 monitoring stations, including Brothers and Northeast of 3RS stations
- Highest detections recorded at Station E Southwest of 3RS, with 53% of logged days recording at least one CWD detection
- Higher CWD detections were recorded during Nov to Feb
- More CWD detections recorded during night-time than daytime – peak detections between 19:00-00:00
- Total detection numbers in Q1-Q3 2025 increased by 36% - 508% (year over year)

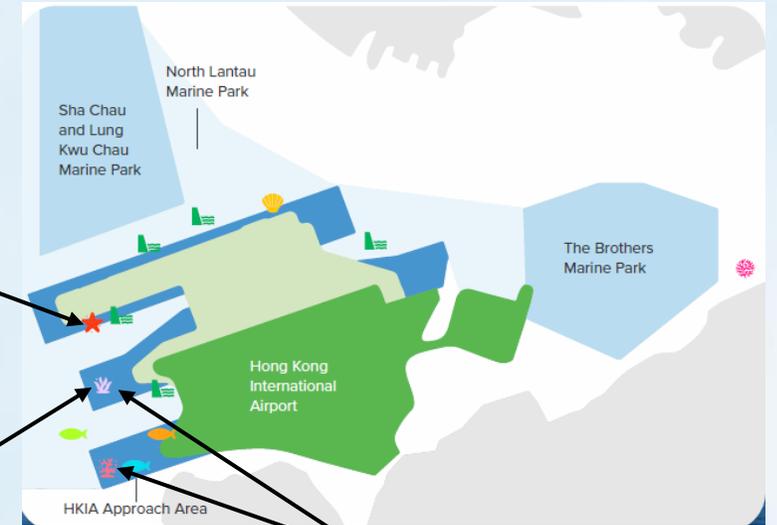


Marine Ecology and Fisheries Enhancement Measures – Scale-up progress



Shellfish Reef (scale-up deployment)

- Completed deployment of ~0.5km reef in Sep 2024
- 12-month ecological monitoring completed in Sep 2025



Artificial Reef (scale-up deployment)

- Deployment of 500 AR units completed in May 2025
- 12-month ecological monitoring ongoing



Fish Fry Release (scale-up release)

- Released approx. 60,000 fish fry and 1M shrimp fry in June 2025 to tie in with National Fish Releasing Day
- Fish fry seen within newly deployed AR units soon after release



(video)



Eco-tours in North Lantau Waters

AA has successfully implemented 38 eco-tours for wide-ranging stakeholders and students

- To learn about the extent and function of the North Lantau Marine Park and other marine protected areas
- To better understand the potential conservation benefits and value of AA's ecological enhancement initiatives and funds



Holistic Monitoring (2025 – 2030)

Objectives

- To assess the effectiveness of North Lantau Marine Park (NLMP) and AAHK's enhancement measures in helping conserve the marine environment
- A focus on potential rebound in Chinese White Dolphin (CWD) usage of North Lantau waters following NLMP designation

Chinese White Dolphin (CWD)

- Small vessel line-transect survey – NEL and NWL
- Passive acoustic monitoring (PAM) – 7 stations covering Sha Chau and Lung Kwu Chau Marine Park (SCLKCMP), The Brothers Marine Park (BMP) and NLMP areas

Intertidal and Subtidal Surveys

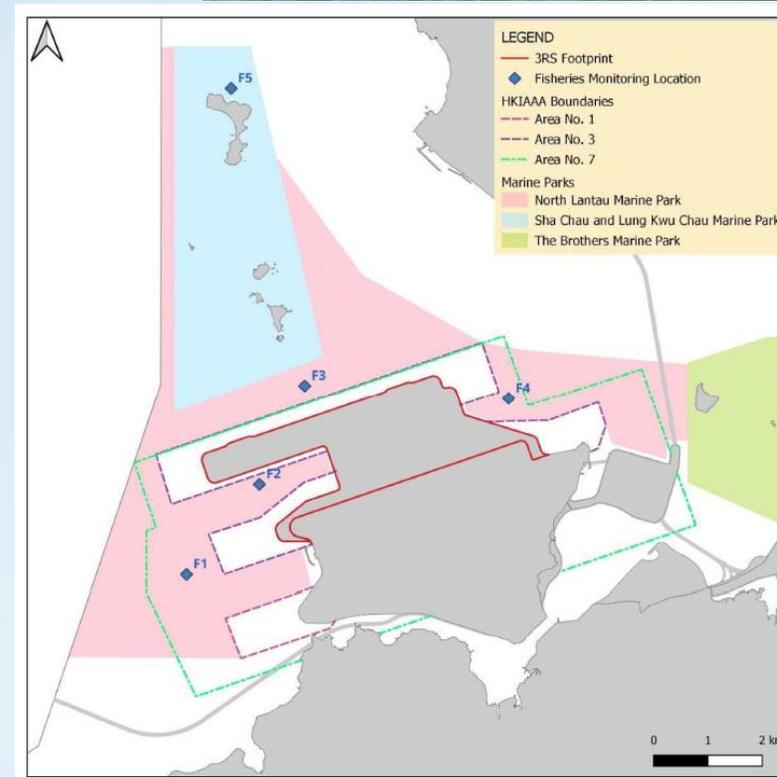
- Eco-shoreline
- Artificial reefs and shellfish reefs

Fish Monitoring

- Long-lining and gillnetting
- Fish sonar



(Photo: 17 Jan 2026)



Marine Ecology Enhancement Fund (MEEF)

➤ A total of **50 projects** have been approved with a total funding amount of approximately **HK\$52.90 million** since 2017

No. of Funded Projects / Total Funded Amount

9 projects
~ **HK\$6.4M**

- Funded MEEF projects in Year 2025/26**
- Developing a Non-Invasive Method to Estimate the Age of Chinese White Dolphins and Finless Porpoises Using the **DNA Methylation Rate***
 - Exploring the Mystery of **Chinese Bahaba** in Hong Kong Western Waters Using Revolutionary **eDNA** Techniques*
 - Long-term Monitoring of Population Dynamics of **Chinese White Dolphins (*Sousa chinensis*) in Lingding Bay** of the Pearl River Delta Region: The Fourth Stage
 - **Ecological and Genetic Assessment of Marine Clams** in Hong Kong to Promote Their Conservation and Sustainable
 - Testing **Probiotic Efficacy** of a Promising Coral Endosymbiont in **Mitigating Coral Stress** Through Field Trials
 - Dive into Diversity: Hong Kong **Marine Benthic Macroinvertebrate Citizen Scientist** Training Programme
 - Advancing **Ecoshoreline Resilience**: Integrating Pioneering Technologies For Biodiversity and Supporting Coastal Habitat Conservation in Hong Kong
 - Embracing Our Tolo: Analyzing **Fishery Landscape** and **Population Health of a Depleted Seascape**
 - Using **Soundscape Ecology** to Study Marine Biodiversity and The Impacts that Sounds Have on the Marine Ecosystem in Hong Kong



Chinese White Dolphin Monitoring



Clam Population Assessment



Marine Benthic Macroinvertebrate Citizen Scientist Training Programme



Soundscape Ecology Study

*2nd phase of the project

Fisheries Enhancement Fund (FEF)

➤ A total of **32 projects** have been approved with a total funding amount of approximately **HK\$60 million** since 2017

No. of Funded Projects / Total Funded Amount	Funded FEF projects in Year 2025/26
<p>7 projects ~ HK\$10M</p>	<ul style="list-style-type: none"> • Pilot Scheme for Scientific Release and Breeding of Fish Fry in Hong Kong for Stock Enhancement* • Seabed Restoration Plan for Aquaculture Areas* • Survey Program for the Production of Fishing Vessels in Hong Kong Waters • Aquaculture Community Outreach and Promotion Programme – The Aquaculture • Pilot Project of Cultivating Tomato Hind (<i>Cephalopholis sonnerati</i>) • Developing Aquamimicry Aquaculture for Hong Kong: A High Yield, High Intensity, Yet Sustainable Shrimp Cultivation System • Promoting the Abalone Cultivation Project in Hong Kong



Breeding and Releasing Fish Fry



Aquaculture Promotion Programme



Cultivation of Nine-Hole Abalone

*2nd phase of the project

Taskforce on Nature-related Financial Disclosures (TNFD)

AAHK's TNFD Roadmap

- Current state assessment and peer benchmarking
- Gap analysis
- Impact and dependency assessment
- Risk and opportunity assessment
- Data collection and TNFD reporting
- To cover in next Sustainability Report

Wildlife Trade Awareness Workshop (22/1/2026)

- Half Day forum with AA, ADM Capital Foundation, AVSECO, C&ED, AFCD, CX, Hactl, WWF, Nucotech, HKPF, DHL, AAT, AFFC, IATA , HK Post (all key stakeholders)
- Strengthen nature risk management: tackling illegal wildlife trade (IWT)
- Facilitate shared understanding of IWT risks, current practices and opportunities across HKIA
- Key stakeholder presentations followed by panel discussion





Waste Management



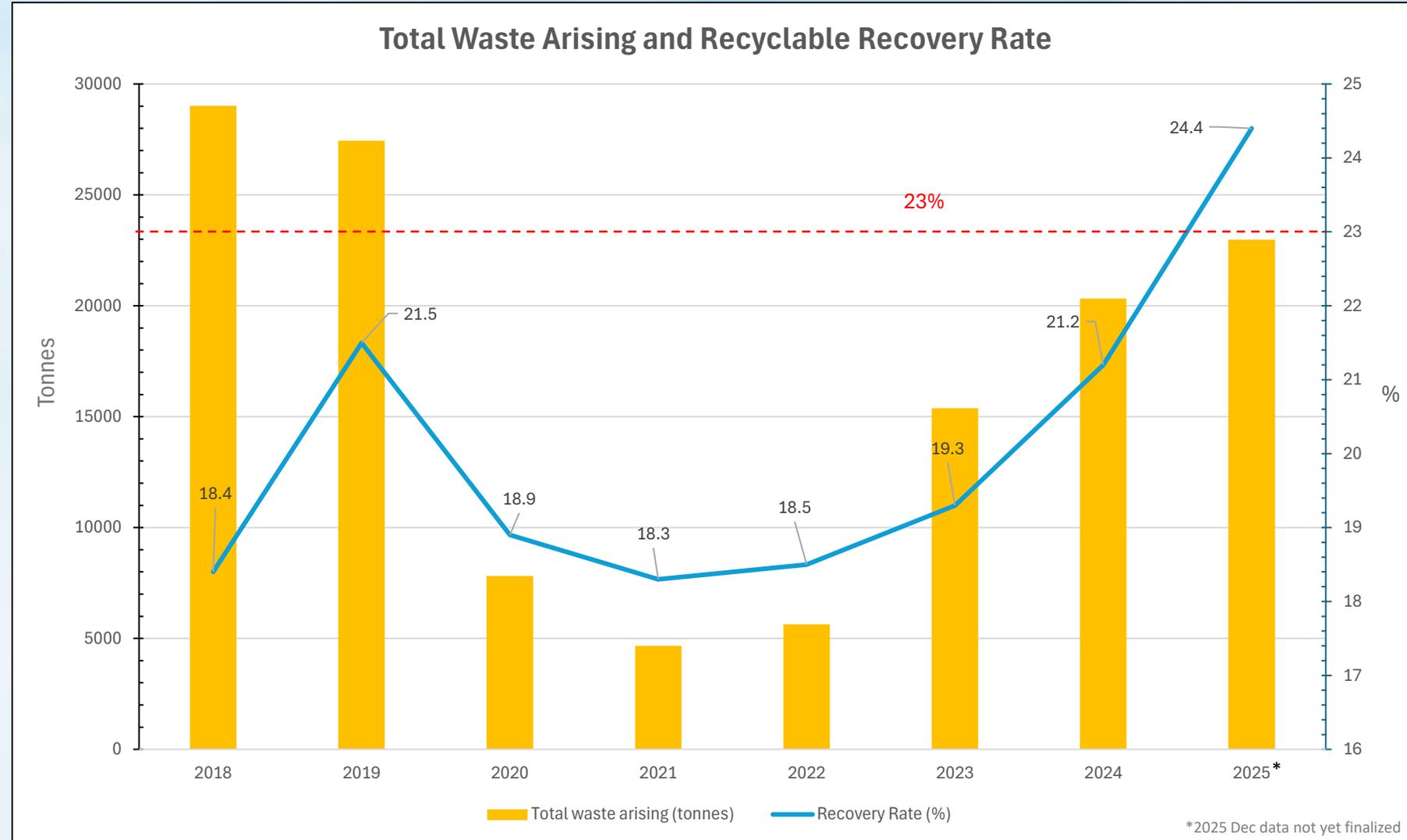
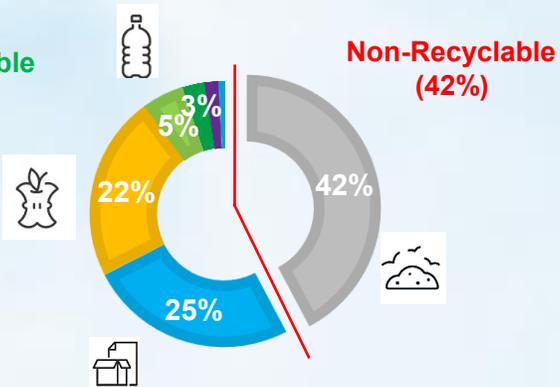
AAHK Recycling Target – ACHIEVED



In 2021, we set a target to increase AAHK's recovery rate for recyclables by **25%** by 2025, compared to a 2018 baseline



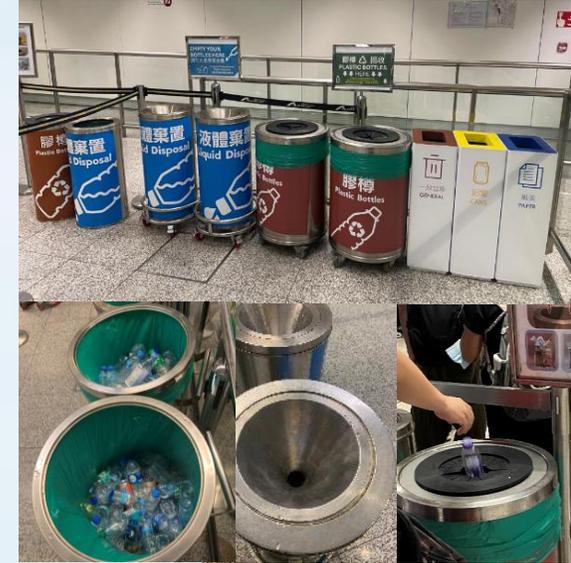
Recyclable (58%)



Waste Recycling Initiatives & Trials – Results

Plastic bottle collection at security channels

- Plastic bottles & liquid = 12% of AA's waste
- Trial at E2 transfer hall
- Modified recycling bin inlets / new cleaners protocol
- Purity of plastic bottles in waste high (Recyclables ↑)
- High liquid content (liquid : plastic bottles = 8:1) removed (Landfill Waste ↓)



Used washroom hand drying paper towels

- Washroom used paper towels = 9% of AA's waste
- Trials in MFC and HKIAComm Bldg washrooms
- Designated recycling bins / clear signage / new cleaners protocol
- High used paper towel purity (>90%) / used paper towels accepted by local recycler



Waste Recycling Initiatives & Trials – Results

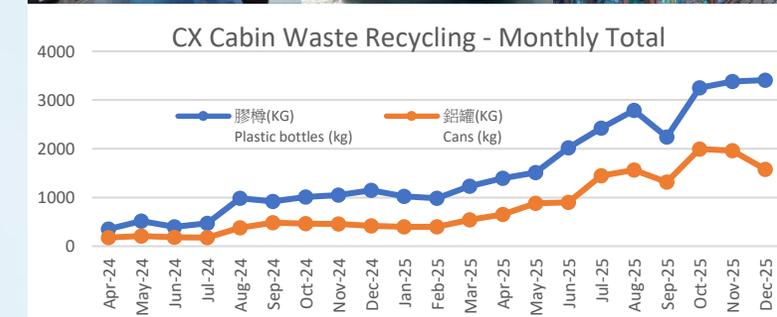
Incentive scheme for frontline cleaners

- Promotion of proper recycling practices of frontline staff
- Target: Cleaning contractors involved in public areas, tenant areas and AA's offices
- To keep recyclables separated from **Source** → **Refuse Rooms** → **Landside Waste Station**
- Cultivated positive recycling behaviour via trainings / inspections and \$ incentives
- ~950 cleaners awarded cash coupons (\$50) per month (Feb – Oct 2025)

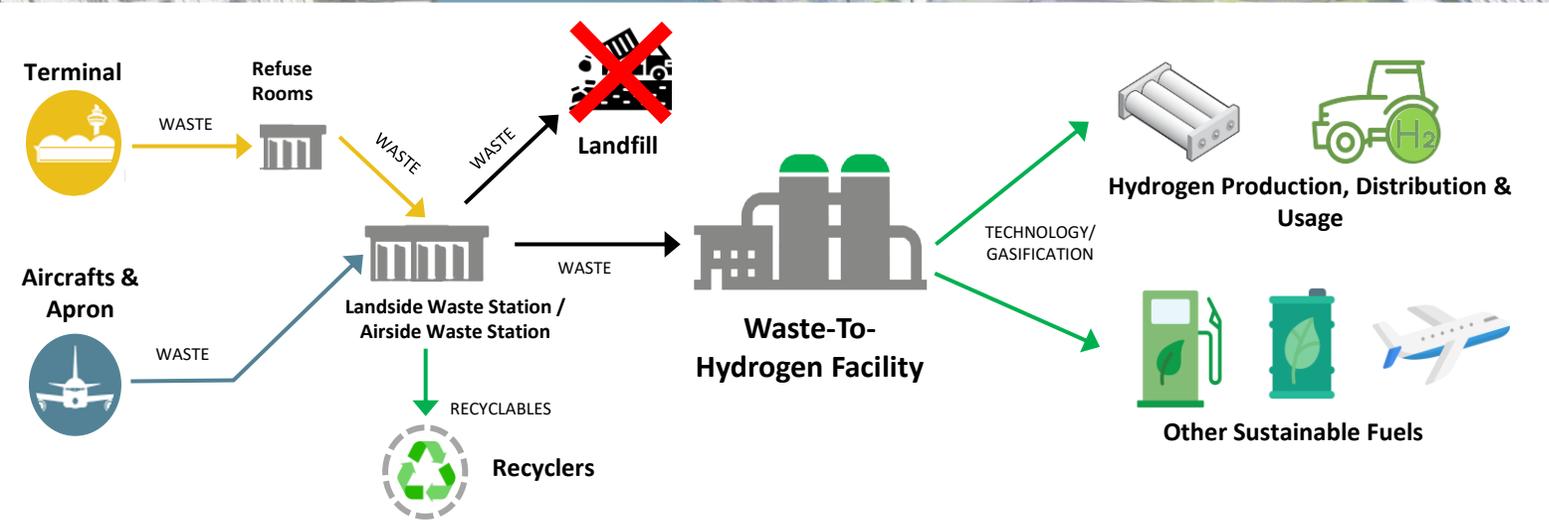


Aircraft cabin waste separation (partner with Cathay Pacific)

- CX cabin crews separating plastic bottles and cans (co-mingled) since Apr 2024
- AA's contractor sorts co-mingled recyclables at Airside Waste Station
- Plastic bottles → New Life Plastic for recycling to food grade plastic pellets
- 10 times volume improvement from April 2024; to promote to more airlines



Waste management – Long-term solution



Airport Island

Passenger Clearance Building
HZMB
Hong Kong Port

Waste-to-Hydrogen Facility

Vehicle Clearance Plaza



Climate Resilience



Climate Events in 2025 - Around the World

Super typhoon Ragasa lashes Philippines, claiming 9 lives

By Xinhua

Share



(Source: [China Daily](#))

Europe on alert as first major heatwave of 2025 pushes temperatures to 42C

Authorities in Spain, Portugal, Greece and France issue extreme heat, wildfire and health warnings



(Source: [Guardian](#))

Weather tracker: Cyclone Remal lashes coast of Bangladesh and India

Alice Fowle for MetDesk

Hundreds of thousands of people evacuated while red alerts issued for unrelenting heat across north-western India and Pakistan



(Source: [Guardian](#))

At least 4 deaths reported after over a half year's worth of rain forces water rescues in parts of South Texas

By Karina Taki, Mary Gilbert and Holly Van, CNN
9 min read · Updated 8:49 PM EDT, Fri March 28, 2025

Share



(Source: [CNN](#))

California fires weather forecast: Nearly 10 million on alert for fire conditions

Winds are expected to pick up later Saturday into the night.

By Nadine El-Bawab and Daniel Amarante
January 12, 2025, 7:23 AM

Share



(Source: [ABC news](#))

Lightning strike at New Jersey archery range kills 1, injures 13 others

According to preliminary data from the National Lightning Safety Council, the fatality marks at least the 12th lightning death of the year.

By Andrew Wulfec | Source FOX Weather

Share



Latest Weather News

Lightning strike at New Jersey archery range kills 1

(Source: [Fox Weather](#))

Impacts of Climate Events on Airports in 2025

WORLD NEWS

Shocking footage shows teetering UPS cargo plane's wing scraping the runway while landing in Taiwan during typhoon

By Anna Young

Published Aug. 14, 2025, 10:47 p.m. ET

19 Comments



(Source: [New York Post](#))

Hong Kong airport braces for Ragasa backlog of 140,000 affected passengers

Reading Time: 2 minutes

Why you can trust SCMP

Listen



(Source: [SCMP](#))

In Germany, a Ryanair plane made an emergency landing due to turbulence, nine injured - media

Kyiv • UNN • June 5 2025, 03:53 PM • 3686 views

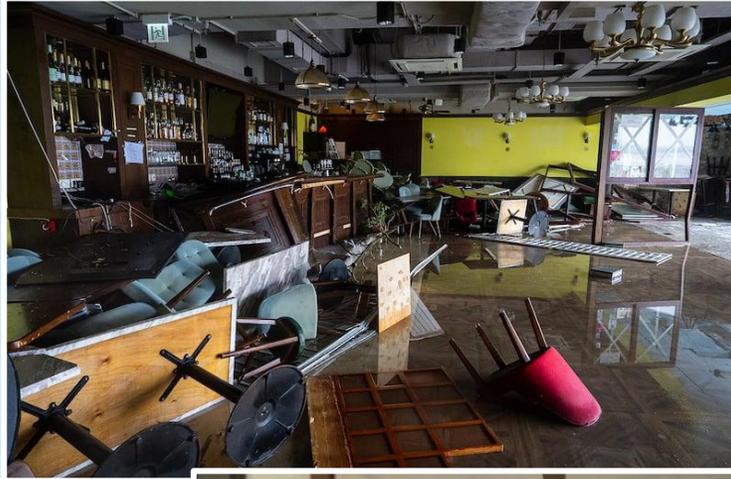
A Ryanair plane en route from Berlin to Milan made an emergency landing in Memmingen due to a thunderstorm. Nine passengers were injured, some were hospitalized.



(Source: [UNN](#))

Record-breaking climate events in HK 2025

Floodwater due to Typhoon Ragasa crash into HK restaurant (Ref: [SCMP](#))



Car park was flooded during the Black rainstorm signal. (Ref: [China Daily](#))

Heavy downpour during the first Black rainstorm in 2025. (Ref: [HKFP](#))

Water blast through hotel glass window during Typhoon Ragasa. (Ref: [BBC](#))



Typhoon

14 typhoons in a year

2nd longest T10 signal - typhoon Ragasa

Rainfall

Most Black Rainstorm signals in a year

Highest daily rainfall in August

Extreme heat

Highest numbers of "very hot days" in October

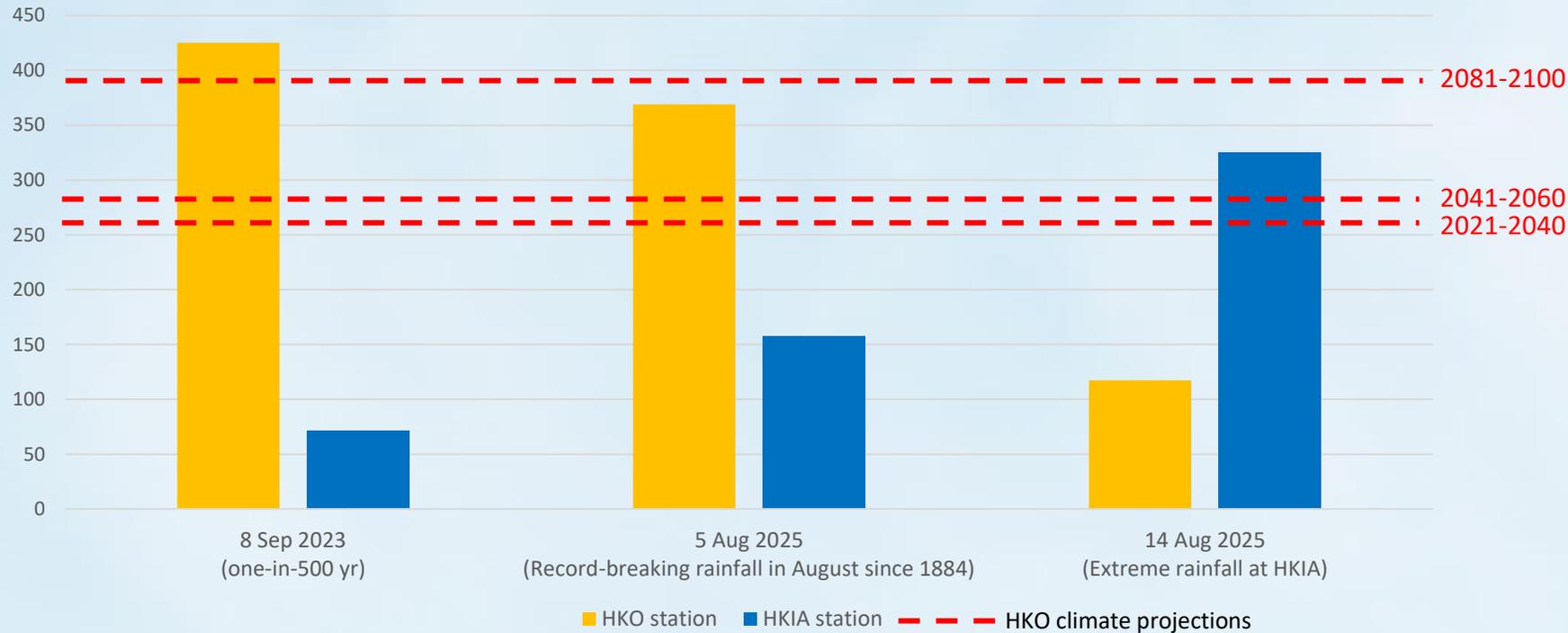
Recent Extreme Events in Hong Kong – Daily Rainfall

In 2025, Hong Kong experienced record-breaking:

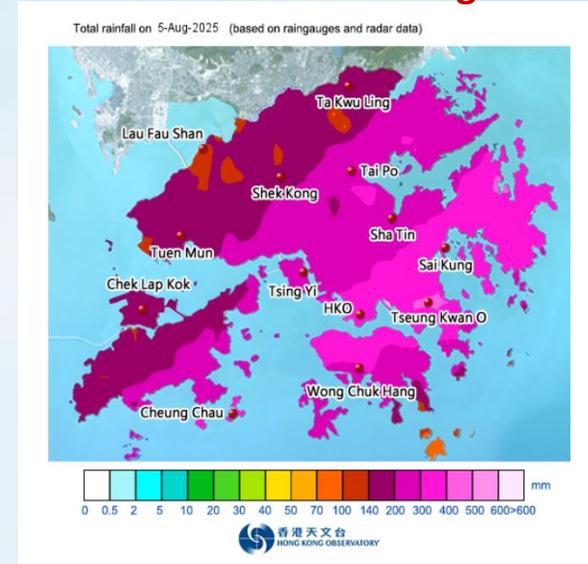
 **5** black rainstorms

 **14** typhoons

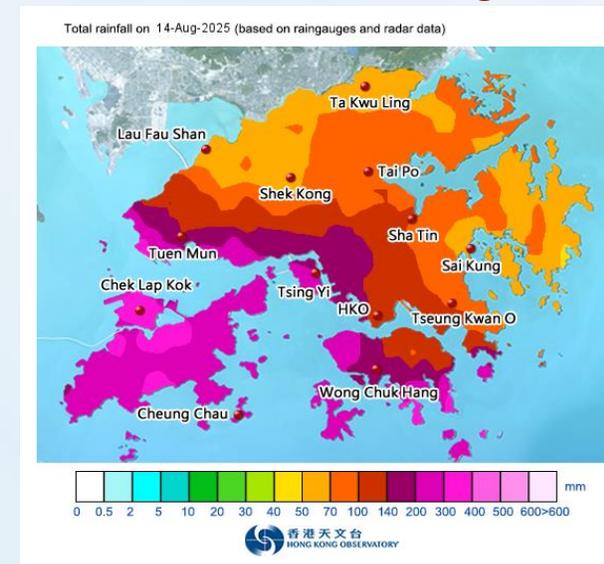
Daily Rainfall (mm)



5 Aug 2025



14 Aug 2025



Hourly Rainfall – Comparative Data

Historical highs – HKO vs HKIA



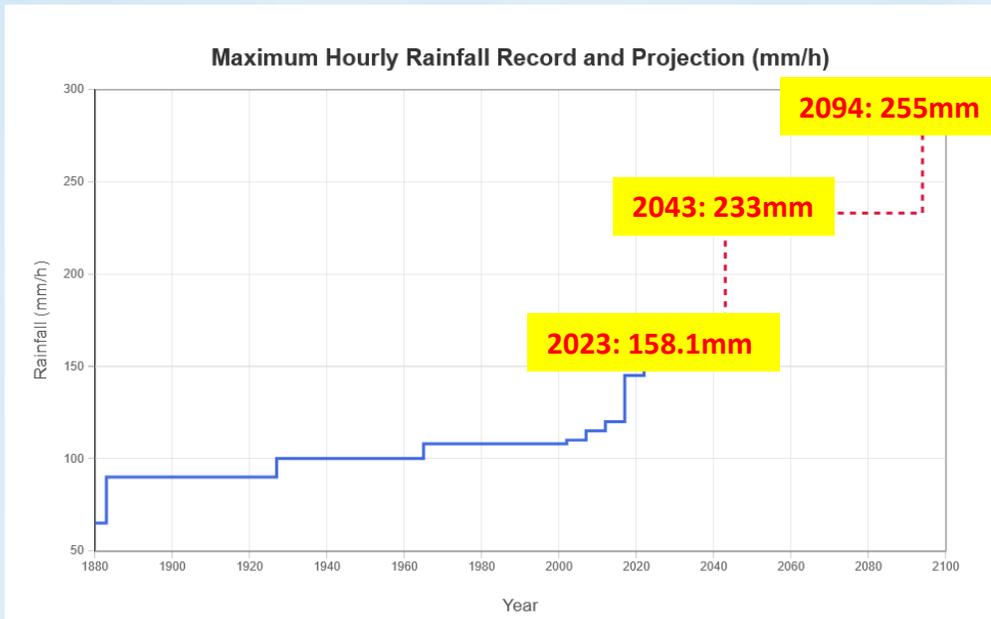
Highest rainfall at HKO's station
(7 Sep 2023, 1-in-500 yr rainfall):

158.1 mm / hr

HKIA highest (14 Aug 2025):

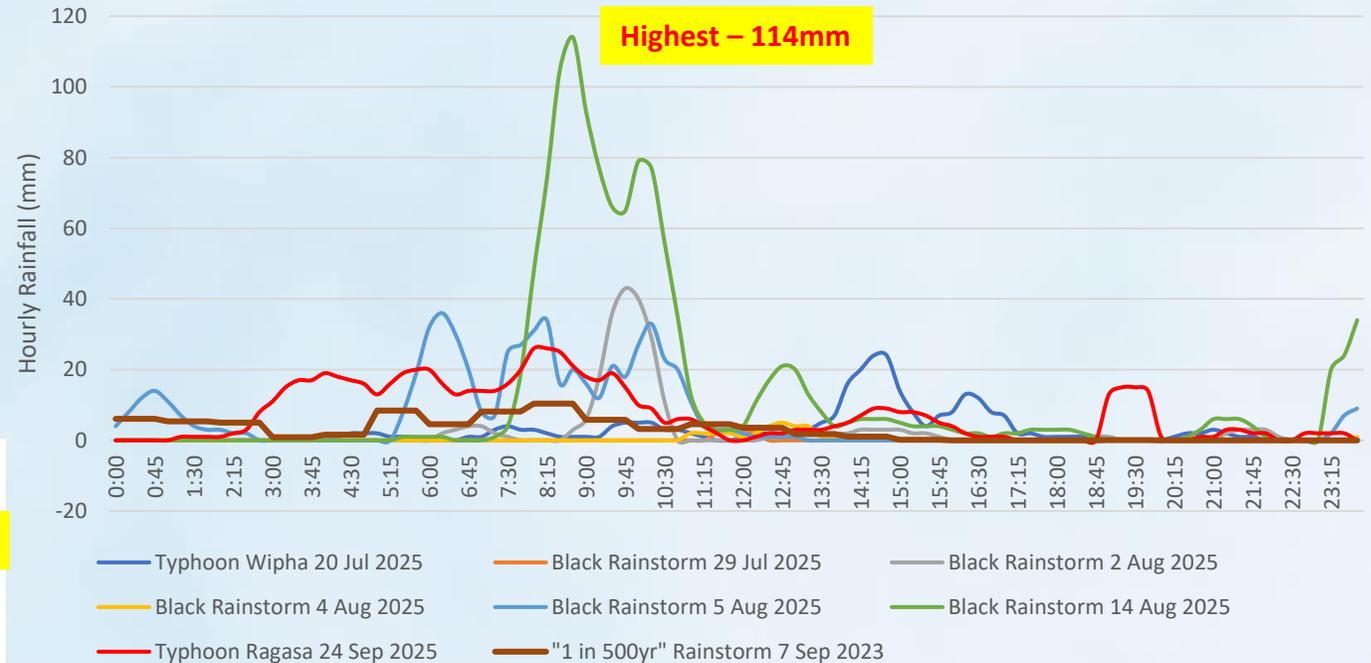
114 mm / hr

Future Projection for Hong Kong



HKIA's rain gauge data comparison

Hourly Rainfall of Extreme Climate Events at HKIA



Source: Prof. Edward Ng, Prof. Jimmy Fung, Dr Chao Ren -
The Chinese University of Hong Kong

Climate Projection for Hong Kong under SSP5-8.5

SSP5-8.5 represents a **very high greenhouse gas emissions scenario** in which carbon dioxide emissions roughly double from current levels by 2050. This is considered as worst-case scenario, as outlined by the IPCC AR6[^].

Temperature increase



Climate projections	1995-2014	2021-2040	2031-2050	2081-2100
Annual mean temperature increase (°C relative to 1995-2014)	23.4°C	+1.3°C	+1.8°C	+5.0°C
Annual maximum temperature increase (°C relative to 1995-2014)	34.4°C	+1.2°C	+1.9°C	+5.6°C
Annual number of very hot days (very hot days relative to 1995-2014)	14 days	73	92	202

Source: Hong Kong Observatory

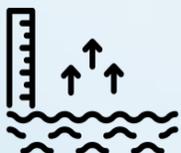
Rainfall increase



Climate projections	1995-2014	2021-2040	2031-2050	2081-2100
Annual maximum daily rainfall increase (% relative to 1995-2014)		+25.1%	+22.3%	+95.8%
Annual maximum daily rainfall (Calculated on the percentage increase in annual max. daily rainfall)	203mm	254mm	249mm	397mm

Source: Hong Kong Observatory

Sea level rise



Climate projections	1995-2014	2030	2050	2100
Mean sea level rise (m relative to 1995-2014)	1.45m*	+0.16m*	+0.42m*	+1.72m*

Source: Hong Kong Observatory

[^] Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6)

*under low confidence scenarios

Note: The above projections shows the upper bound of the likely range.

AAHK's Climate Adaptation and Resilience

- AAHK completed an 18-month **Climate Resilience Study** for HKIA in 2020/21
- A **cross-departmental steering committee and working group** were established to promote collaborative input and knowledge sharing, and provide endorsement of key outputs of the study
- The study comprised of **comprehensive engagement** with 20 internal departments through about 100 meetings, workshops and online assessment feedbacks.

Aim:

Strengthen the resilience of HKIA to the anticipated impacts of climate change by assessing multiple climate scenarios and the associated impacts to asset planning, financial performance and operations.



Recap on Climate Resilience Study 2020/21

- The study confirmed that HKIA already has a **high level of resilience to climate change** with the **existing controls** in place.

Existing controls, for example



Operational procedures

- Manuals and procedures in place to deal with extreme climate, e.g.
 - Business Continuity Manual
 - Typhoon and Heavy Rainstorm Preparation Guidelines
 - Plans for active media engagement during extreme climate events



Monitoring and maintenance

- Inspection and preventive maintenance programme for critical infrastructure
- Regular review of enhancement works needed
- Power supply analyzer to monitor anomalies



Emergency management

- Airport Emergency Centre for multi-agency coordination
- Emergency generators available
- Fault Response Team and Passenger Care Team



Physical / system protection

- Seawall and drainage system
- Uninterruptible power supply for essential systems
- IoT sensors for real time storm surge alert
- Some consideration of climate change in new developments (e.g. seawall)

Operational Readiness for Extreme Weather

- Briefing, trainings and drills are conducted to enhance HKIA's preparedness to manage potential disruptions caused by typhoons
- Annual Typhoon readiness exercise **Summer Blow** with Ambulance, AVSECO, local carriers, ground participants and different organizations, including HKO, Hong Kong Police Force, Hong Kong St. John and ramp handling agents
- The exercise covers Airport Emergency Centre activation, crowd management, transport contingency



Identifying Priority Assets in Climate Resilience Study

01

Preliminary Screening

- A high-level indicative process aimed at effectively narrowing the scope of the assessment
- A list of **94 asset classes** were determined in this process

02

Initial Assessment

- **Sixteen asset classes** were shortlisted from preliminary screening using criteria relating to design life, criticality to operations, past performance during events
- A **likelihood and consequence risk matrix** was adopted to rate the physical risks of each asset class under multiple climate scenarios over 2030, 2050 and 2100

03

Deep Dive Assessment

- Detailed assessment was undertaken to identify priority risks, current controls and adaptation actions for **six priority asset classes (i.e. classes which had highest level risks)**

Considered in Climate Resilience Study

Climate scenarios :	RCP 8.5 and H++ Sea level rise*
Timeframes:	2030, 2050, 2100
Hazards:	<ul style="list-style-type: none"> • Typhoons • Extreme rainfall • Lightning strikes • Sea level rise • Tidal flooding • Temperature rise

*RCP8.5 represents a “business as usual” scenario or a “worst-case” scenario under IPCC AR5. H++ scenario to provide an even higher possible rate of sea level rise, which was used as a sensitivity analysis for critical assets.

Climate Adaptation and Resilience Plan

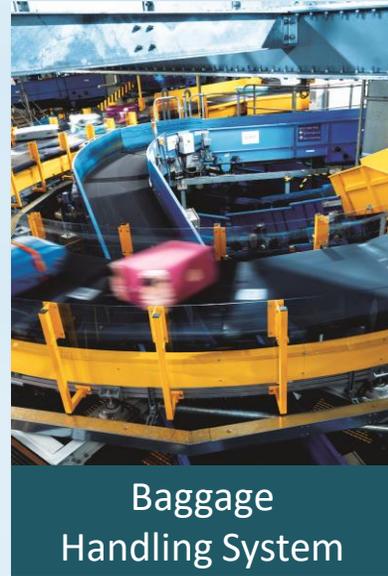
- The Study informed the development of **Climate Adaptation and Resilience Plan (CARP)**.
- The CARP includes a series of departmental Climate Action Plans which address climate-related risks for the following **six priority assets**.



Airfield



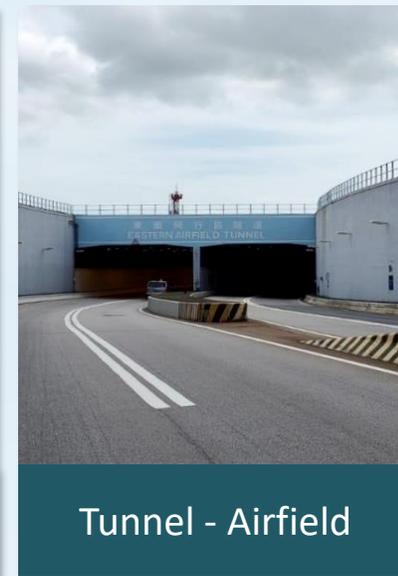
Airfield Power Distribution System



Baggage Handling System



Chiller Systems and Seawater Systems



Tunnel - Airfield



Terminal Buildings

Understanding and Managing Flood Risk at HKIA

- Initial studies in 2020/21 analyzed various climate scenarios across 2030, 2050 and 2100, including **IPCC AR5's extreme RCP 8.5 and H++**.
- A 2023 review focused on **IPCC AR6's** latest scenarios and HKO's downscaled data (**SSP5-8.5 83rd percentile**).

Seawall study

- Assessed **extreme water levels and extreme wave conditions** along the perimeter of the airport
- Extensive data analysis with **numerical modelling of hydrodynamics and waves**, including typhoon simulations
- Considered **sea level rise** projections from HKO, **extreme winds and water levels** data from CEDD, and **tide data** from Chek Lap Kok gauges

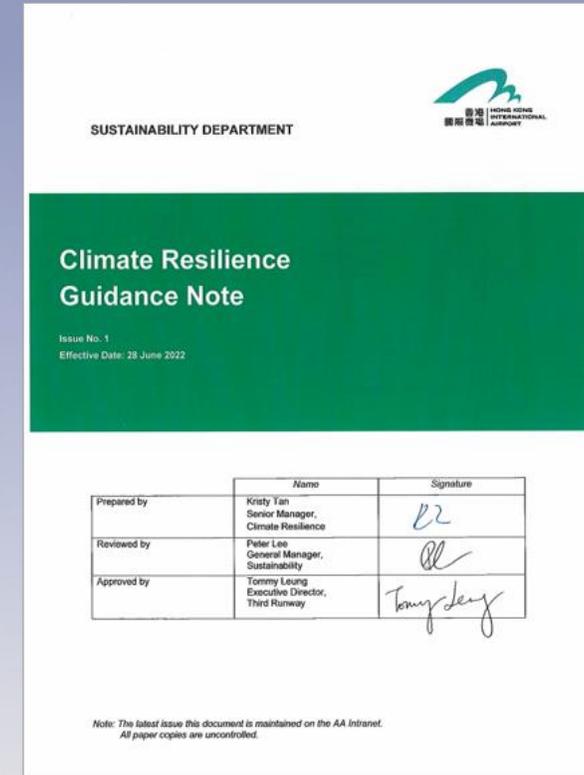


Airport-wide drainage study

- Assessed **network performance of existing and planned drainage network**
- Adopted **extreme tidal levels and wave overtopping rates** from seawall study, together with extreme rainfall assumptions
- **Concluded that HKIA is well-protected from flooding under IPCC tested scenarios at least until mid-century and operational at the end of century with adaptation measures in place**

Climate Resilience Guidance Note

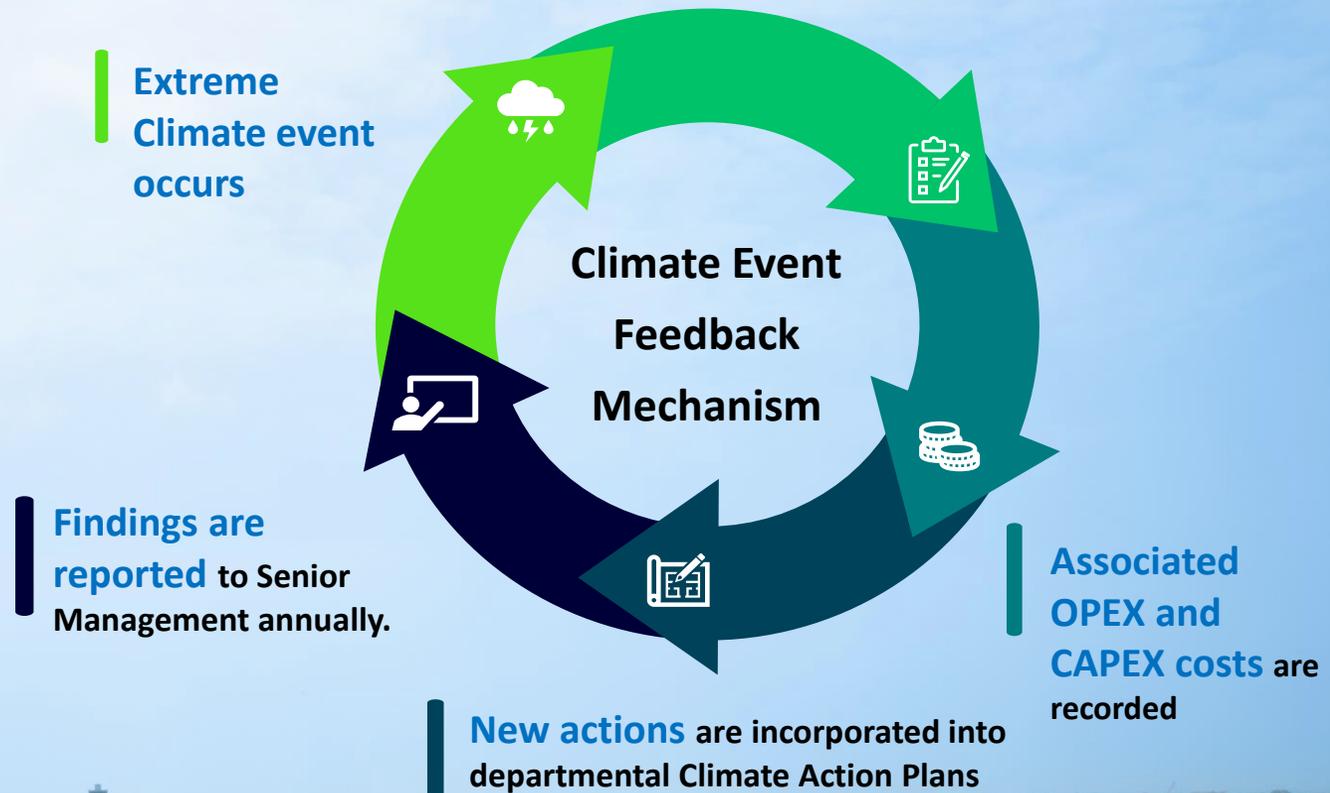
- Launched in 2022, the **Guidance Note** communicates AA's expectation that **consideration of climate change be integrated into future infrastructure** or building development or asset renewal.
- Outlines the approach for assessing climate risks and developing options to build resilience into future infrastructure development and asset renewal at HKIA
- Applies to AA's projects as well as Franchisees' developments (i.e. businesses operating within the airport)



Climate Event Feedback Mechanism

- In 2024/25, AAHK introduced a **Climate Event Feedback Mechanism (CEFM)** to capture operational impacts and related costs from extreme climate events.
- This CEFM provides a platform to re-examine existing control measures and consider the need to enhance responses to address more severe and frequent extreme climate events.
- **Data and information collected informs future airport planning.**

Impacts are captured via the annual Operational Risk Register Review and post-event debriefing





Other Updates



Green Design and Sustainable Construction

 Ongoing BEAM Plus Assessments



T1 Midfield Concourse

- Grand Award** – Green Building Award 2016, New Buildings Category, Completed Projects, Institutional Building

3RS Third Runway & Associated Works

- Excellent Rating** - CEEQUAL, Sustainability Performance Assessment for Interim Client and Design Award

Expansion of T2

- Platinum Rating** - HKGBC, BEAM Plus Provisional Assessment, New Building Category

Sky Bridge

- Gold Rating** - HKGBC, BEAM Plus Provisional Assessment, New Building Category

Terminal 2 Concourse and Air Traffic Control Tower

- Platinum Rating** - HKGBC, BEAM Plus Provisional Assessment, New Building Category

Sky Bridge

- Platinum Rating** - HKGBC, BEAM Plus Final Assessment, New Building Category

HKIA Tower Two

- Gold Rating** - HKGBC, BEAM Plus Final Assessment, New Building Category



T1 Midfield Concourse

- Gold Rating** – HKGBC, BEAM Plus Final Assessment



3RS Aviation Fuel Pipeline Diversion

- Excellent Award & Outstanding Award** – CIC Sustainable Construction Award, Industry Practitioners Category
- Merit Award** – CIC Sustainable Construction Award, Organisation Category



3D Deep Cement Mixing Works

- Excellent Award** - CIC Sustainable Construction Award, Industry Practitioners Category
- Silver Award** - CIC Sustainable Construction Award, Organisation Category



HKIA Tower Two

- Gold Rating** - HKGBC, BEAM Plus Provisional Assessment, New Building Category



3RS Third Runway & Associated Works

- Excellent Rating** - CEEQUAL, Sustainability Performance Assessment for **Whole Team Award**



AsiaWorld Expo - Phase 2 Development

- Platinum Rating** - HKGBC, BEAM Plus Provisional Assessment, New Building Category



Transit Mail Centre

- Gold Rating** - HKGBC, BEAM Plus Final Assessment, New Building Category



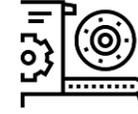
Terminal 2 Expansion – Green Design Measures



BEAM Plus Provisional Platinum



Use of Prefabricated Building Elements



Use of prefabrication methods to reduce resource consumption



Enhanced quality and durability



Saved construction materials



Improved construction traffic management



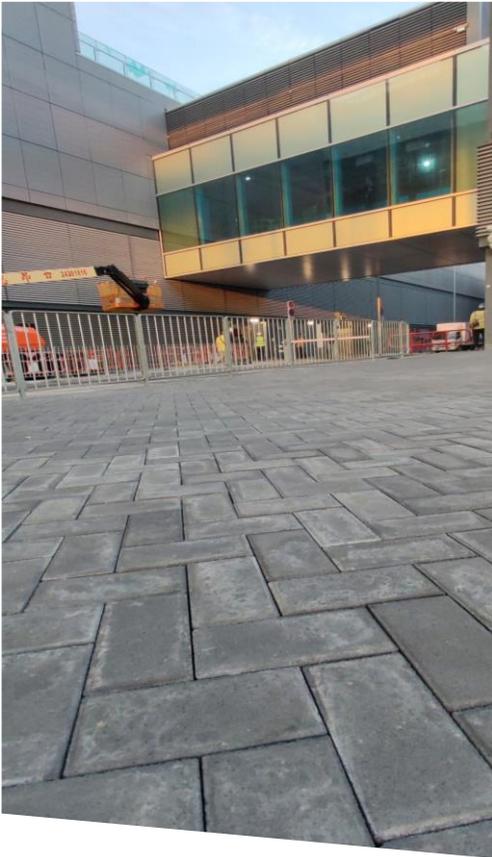
Reduced environmental impact from operation of heavy duty vehicles



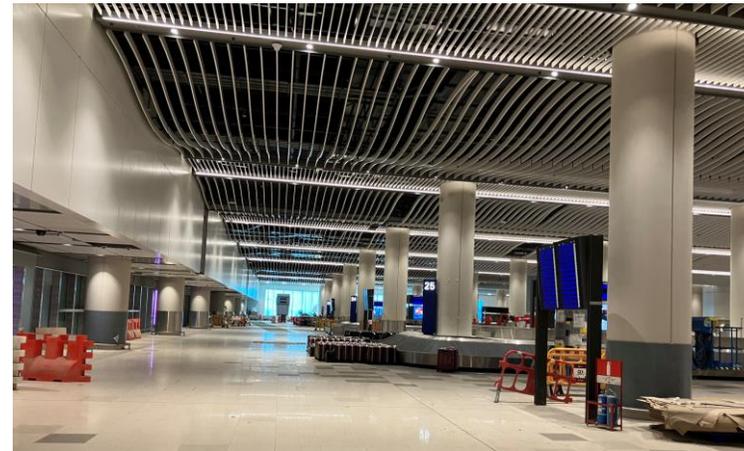
Use of Recycled Materials



Eco-paving Blocks



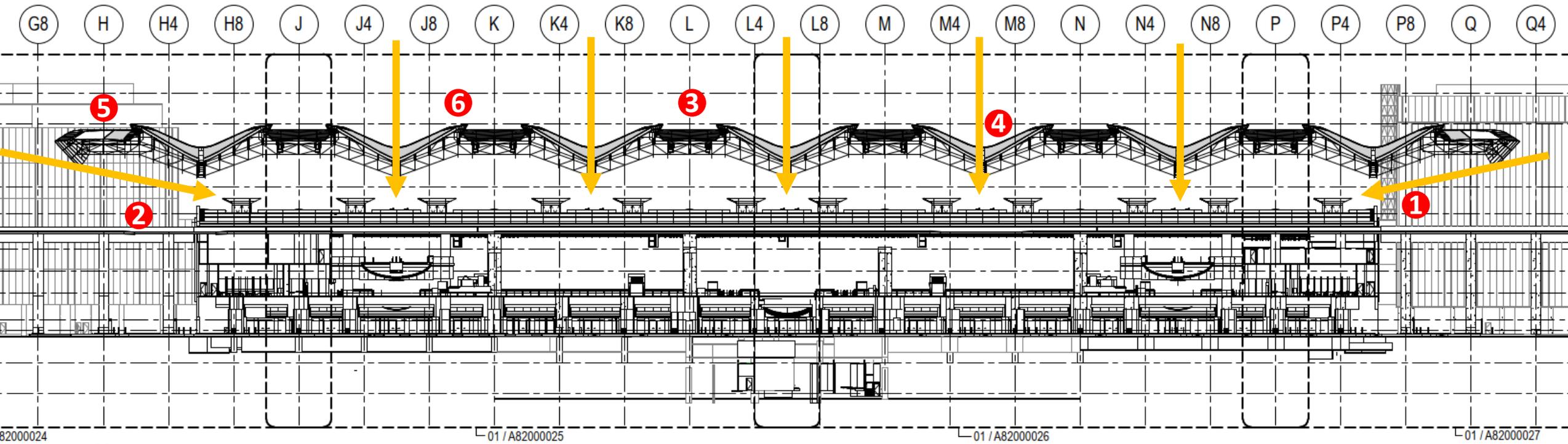
Aluminum-based metal ceiling system with high recycled content



Design of Building Facade

Optimised Roof and Façade Design for T2 Expansion

- 1 Optimized window to wall area
- 2 High performance glazing
- 3 High reflectance roof material
- 4 Natural daylighting
- 5 Shading of external glazed areas
- 6 Roof insulation to prevent heat transfer



Use of Renewable Energy



**Total area of PV Panels:
2,000 m²**



**Electricity saved per year:
317 MWh**

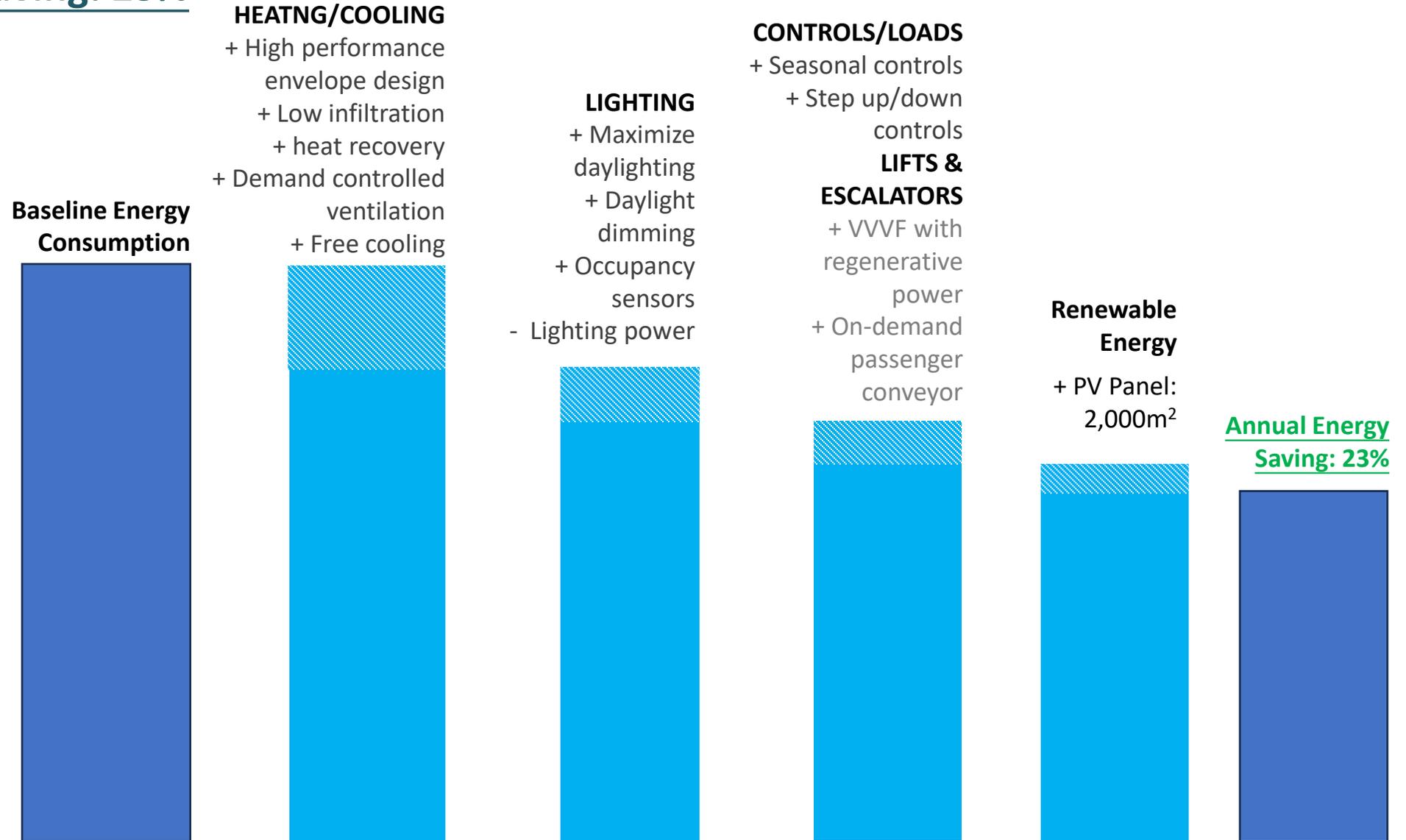


**CO₂-e avoided annually:
120 metric tons**



Reduction of Energy Use

Annual Energy Saving: 23%



Indoor Environmental Quality



Indoor Air Quality (IAQ)

- 30% additional fresh air provision over ASHRAE 62.1
- Low VOC materials
- Tenant exhaust system during fit-out works



Construction IAQ management



Lighting Design

- Adoption of “Digital Addressable Lighting Interface (DALI)” system



Acoustic Design

- Sound Insulation and Noise Reduction



Green Roof





Questions & Comments?



Thank you