



33/F, Revenue Tower, 5 Gloucester Road, Wan Chai, Hong Kong
香港灣仔告士打道 5 號稅務大樓 33 樓

ACE Paper 10/2026
For information by circulation

**Expansion of Hong Kong International Airport into a
Three-Runway System (“3RS”)**

**Update on the Implementation of Environmental Mitigation and
Enhancement Measures in association with the 3RS Project**

This paper encloses an information paper prepared by the Airport Authority Hong Kong to the ACE providing an update on the implementation of environmental mitigation and enhancement measures related to the 3RS Project.

ACE Secretariat
August 2026

Expansion of Hong Kong International Airport into a Three-Runway System (“3RS”)

Update on the Implementation of Environmental Mitigation and Enhancement Measures in association with the 3RS Project

PURPOSE

This paper provides an update to Members on the general progress of the 3RS Project at Hong Kong International Airport (“HKIA”) and the implementation of environmental mitigation and enhancement measures related to the Project.

BACKGROUND

2. This paper covers: (a) progress of the 3RS Project; (b) environmental monitoring and audit (“EM&A”) programme; (c) voluntary Chinese White Dolphin (“CWD”) monitoring; (d) progress on the implementation of marine ecology and fisheries enhancement measures; (e) green design and sustainable construction; and (f) stakeholder engagement related to the 3RS Project.

PROGRESS OF THE 3RS PROJECT

3. Following the commencement of the 3RS operation on 28 November 2024, Airport Authority Hong Kong (“AAHK”) has been commissioning the new passenger facilities in phases in line with passenger traffic demand. The new Coach Hall at Terminal 2 (“T2”) commenced operations in September 2025, which provides 41 parking bays for tour buses, cross-boundary coaches, limousines, hotel shuttles, as well as crew and resident coaches. It is also equipped with ticketing counters for cross-boundary transport services, offering a more comfortable indoor waiting environment.

4. The departure facilities at T2 were launched on 27 May 2026 to meet the anticipated surge in passenger traffic during the summer peak season. Seamlessly connected to the Airport Express platform and T1, T2 is served by 15 airlines mainly operating regional short-haul routes.

5. In the next phase, T2 passengers will use the new T2 Concourse (T2C) boarding gates for both departures and arrivals. T2C is expected to commence operations before the end of next year, in line with traffic demand.

EM&A PROGRAMME FOR 3RS PROJECT

6. The implementation of the EM&A programme for the 3RS Project is ongoing. Following the full commissioning of the 3RS, the scope of active construction activities has been significantly reduced. Accordingly, the number of construction dust and construction noise impact monitoring stations has been reduced since January 2026. All relevant EM&A information (including monitoring results, the status of mitigation measures, non-compliance events, and corresponding follow-up actions) is reported monthly. Submissions required under the Environmental Permit (“EP”) both prior to and for the first full year of operation of the 3RS Project¹ have been approved by the Director of Environmental Protection, in accordance with the EP requirements. The EM&A information, along with the finalised EP submissions, is publicly accessible via a dedicated website². Since the commencement of construction, the EM&A programme and all required environmental mitigation measures have been properly implemented.

7. One-year operation phase monitoring of the Chinese White Dolphin (“CWD”) concluded in December 2025 and all the CWD monitoring under 3RS EM&A programme have been completed. The one-year operation phase CWD monitoring included vessel-based line-transect surveys to assess habitat usage and distribution in western Hong Kong waters, as well as capturing seasonal variations.

8. The actual number of CWDs recorded during vessel surveys in 2025 was comparable to that in 2024 (466 dolphins in 2025 compared with 490 dolphins in 2024) while passive acoustic monitoring (“PAM”) continued to confirm dolphin presence in Northwest Lantau waters, particularly during winter. Besides, photo-identification surveys consistently recorded approximately 100 individual dolphins and over 10 newly identified individuals annually in Hong Kong’s western waters over the past five years. During the same period, 24 to 29 sightings of mother-calf pair(s) were recorded annually, indicating that Hong Kong’s waters continue to serve as important nursery habitat for the species, supporting both calf rearing and recruitment within the wider Pearl River Estuary population.

9. In terms of overall CWD abundance, the estimate based on the vessel survey for 2025 was 30 individuals. As abundance estimates derived from line-transect distance sampling are influenced not only by the number of dolphins observed but also by factors such as group size, sighting distance and detectability, year-to-year variations should be interpreted together with other monitoring results, such as findings discussed in Paragraph 8 above. The 2025 survey year coincided with exceptionally active tropical cyclone and rainstorm conditions in Hong Kong, particularly during the summer months, which may have influenced dolphin distribution, behaviour and detectability during vessel surveys. Compared with 5 and 7 tropical cyclones affecting Hong Kong in 2023 and 2024 respectively, a record

¹ These include an updated Submission of Procedures for Mitigation of Aircraft Noise (under EP Condition 2.21) and the Submission of updated NEF25 Contour (under EP Condition 2.22) for the 3RS operation.

² Dedicated 3RS Project webpage for environmental-related issues:
<http://env.threerunwaysystem.com/en/index.html>

of 14 tropical cyclones, including 5 super typhoons, affected the territory in 2025. In addition, while 2 Black Rainstorm Warnings and 8 Red Rainstorm Warnings were issued in 2023, and no Black Rainstorm Warning and 4 Red Rainstorm Warnings were issued in 2024, 2025 saw a record-breaking 5 Black Rainstorm Warnings and 16 Red Rainstorm Warnings, particularly during June to September. Intense and frequent storm events are known to substantially alter coastal environmental conditions, including increases in turbidity, freshwater input, and water-column mixing, as well as persistent overcast condition and prolonged periods of elevated sea state before and after typhoon passage. For coastal delphinids such as CWDs, these conditions could alter their distribution and behaviour, and thus reduce surface availability and visual detectability, even during surveys conducted under nominally acceptable Beaufort sea states (Parsons, 2024)³.

10. The collective findings suggest that dolphins continue to make regular use of western Hong Kong waters, including areas around North Lantau. The lower abundance estimate recorded in 2025 is therefore considered more likely to reflect inter-annual variation in distribution, group structure and detectability associated with prevailing environmental conditions, rather than indicating a corresponding change in the broader utilisation of these waters by the dolphin population. It is important to remember that dolphins shift around within their habitat from year to year, due to both natural and anthropogenic factors. Thus, short-term monitoring data of CWDs is insufficient to indicate the full picture of population decline or recovery. Dolphins live for many decades and thus long-term monitoring using consistent methods is needed over an extended period of time in order to evaluate the true conservation status of the CWD population and how its use of Hong Kong waters is being affected changing over time.

11. It is noted that after substantial completion of the reclamation and marine works of the 3RS Project in 2022, the abundance of CWDs has recorded an increase in 2023 and 2024. With the completion of reclamation and marine works, and the designation of the North Lantau Marine Park (“NLMP”) in November 2024, overall dolphin usage in Hong Kong’s western waters is expected to rebound over the long term.

VOLUNTARY CWD MONITORING

12. Following the completion of all the CWD monitoring under 3RS EM&A programme, AAHK will continue to carry out voluntary CWD monitoring, including both vessel-based line-transect survey and PAM, up to 2030. The voluntary CWD monitoring demonstrates AAHK’s commitment to marine conservation, and will provide a robust framework to monitor the dolphin abundance and habitat usage in the western waters, as well as the outcomes associated with the establishment of the NLMP in Northwest Lantau.

³ Parsons, E.C.M. (2004). The behavior and ecology of the Indo-Pacific humpback dolphin (*Sousa chinensis*). *Aquatic Mammals*, 30(1), 38–55.

13. Voluntary PAM commenced in 2020, with the continuation of one PAM station beyond the statutory 3RS EM&A monitoring period. Since 2022, voluntary PAM has expanded to seven stations, collecting supplementary data for the review of temporal and spatial patterns of dolphin activity. While abundance estimates from line-transect surveys are sensitive to changes in detectability, group structure and environmental conditions, as discussed in Paragraph 9 above, PAM offers an independent means of assessing dolphin occurrence by recording dolphin vocalisations regardless of visual sighting conditions.

14. PAM results continued to confirm regular CWD presence in Northwest Lantau waters particularly during winter season. There was significant increase in PAM detection levels at those stations to the west of HKIA from 2022 to 2025. The overall PAM detection rate at the seven stations (expressed as detection positive day %) also showed a moderate increasing trend from 2023 to 2025. AAHK's voluntary marine ecology and fisheries enhancement initiatives (See Paragraphs 15 to 18 below) may have already contributed to improved prey availability and enhanced habitat conditions, thereby supporting the potential recovery of dolphin usage in the area.

MARINE ECOLOGY AND FISHERIES ENHANCEMENT MEASURES

15. AAHK remains committed to enhancing the marine environment to support marine ecology, including CWD habitats, and fisheries resources in the vicinity of the 3RS Project area. In addition to fulfilling statutory EP requirements, AAHK has proactively explored and implemented a range of initiatives and programmes that go beyond regulatory obligations. The Marine Ecology Enhancement Fund ("MEEF") and the Fisheries Enhancement Fund ("FEF") were established in late 2016 with a combined budget of HKD 400 million. To date, over HKD 123 million has been granted to 93 qualifying projects under these funds. Details of the funded projects, including completed project reports, are available on the dedicated websites⁴. For the 2026/27 funding year, examples of supported projects include conservation ecology of horseshoe crab in Deep Bay and Tung Chung Bay, deciphering the fluxes and cycling of climate-cooling gas dimethylsulfide in Hong Kong seagrass meadows, the enhancement and culture of Chinese Bahaba in Hong Kong Lantau waters, and advancing aquaculture modernisation and industry transformation.

16. Building on the success of marine ecology and fisheries enhancement pilot studies conducted in the vicinity of the NLMP and surrounding waters, AAHK has scaled up three key enhancement measures: the deployment of shellfish reefs ("SRs"), artificial reefs ("ARs"), and the release of fish fry in North Lantau waters. These initiatives aim to enhance marine habitats, including those within the

⁴ Marine Ecology Enhancement Fund webpage:
<http://env.threerunwaysystem.com/en/meef/index.html>
Fisheries Enhancement Fund webpage:
<http://env.threerunwaysystem.com/en/fef/index.html>

extensive, interconnected marine protected area. The expanded deployment of SRs was completed along a half-kilometre stretch of the southern seawall of the North Runway in September 2024, while 500 AR units were deployed in May 2025 within restricted waters west of the Centre Runway. A major fish restocking exercise was also conducted on 6 June 2025 to coincide with National Fish Releasing Day. In this exercise, approximately 60,000 fish fingerlings were released at both the pilot and scaled-up AR deployment sites within the restricted HKIA Approach Area, and about one million shrimp fry were also released in nearby waters. A six-year holistic monitoring plan commenced in 2025 to assess the broader biodiversity value generated by these enhancement measures.

17. The post-installation monitoring of the eco-enhanced seawall blocks (“eco-blocks”) is ongoing. Monitoring conducted in November 2025 and January 2026 demonstrated that the eco-blocks continued to support higher biodiversity than conventional seawall blocks used as controls. A wide range of marine organisms, including algae, barnacles, bivalves, corals, gastropods, sponges, worms and other epifauna, were recorded on the eco-blocks, with several species found exclusively on these enhanced structures. Of particular note, the gorgonian coral *Guaiagorgia* sp. was observed on both eco-blocks and control blocks. The monitoring results continue to demonstrate the ecological benefits of incorporating habitat features into seawall design and the effectiveness of the eco-blocks in enhancing biodiversity along the 3RS seawall.

18. After the designation of the NLMP, a publicity campaign was launched to highlight AAHK’s ongoing efforts in marine ecology, fisheries enhancement, and conservation in 2025, including a biodiversity exhibition at HKIA, video productions, media placements and a series of eco-tours around North Lantau waters. Following the success of the publicity campaign, preparation is underway for a second series of eco-tours to be launched in September 2026 to further educate and raise public awareness of marine conservation.

GREEN DESIGN AND SUSTAINABLE CONSTRUCTION

19. AAHK continues to pursue excellence in green building design and sustainable construction. HKIA’s Flood Resilience Studies were honoured with a Platinum Award at the Airports Council International (ACI) Asia-Pacific & Middle East Green Airports Recognition 2026 in the “over 40 million passengers per annum” category. This highest accolade recognises HKIA’s proactive approach to climate change adaptation and its robust flood risk management strategy, underpinned by the integration of comprehensive climate resilience measures into the design of the 3RS Project.

20. The expanded T2 and T2C attained the provisional Platinum rating under BEAM Plus in April 2020 and February 2022, respectively. Taking into account the phased commissioning programme of the facilities in both buildings, the BEAM Plus Final Assessments are currently in progress. Relevant submission materials,

including measurement and performance data, are being compiled for both developments in preparation for submission to the BEAM Society Limited for review by its independent assessors.

STAKEHOLDER ENGAGEMENT

21. To maintain transparency and proactive communication with the community, AAHK continues to engage stakeholders through the Community Liaison Groups (“CLGs”) and the Professional Liaison Group (“PLG”), facilitating dialogue, enquiries, and complaint handling on environmental matters related to the 3RS Project. The most recent CLG meetings-cum-visits were held in December 2025 and May 2026, while the PLG meetings-cum-visits took place in February and May 2026. During these sessions, CLG and PLG members were briefed on the latest progress of the 3RS works and related environmental issues.

22. AAHK is committed to maintaining a high level of transparency in its work. The dedicated 3RS Project website provides the public with up-to-date information on the project, including EM&A data and results, updated plans and submissions in accordance with the EP, presentation materials from liaison group meetings, and details on the status and operation of the MEEF and FEF. The website also features short videos highlighting selected projects funded by the MEEF and FEF.

WAY FORWARD

23. Since the commencement of the 3RS operation, AAHK has continued to implement the environmental mitigation and enhancement commitments associated with the 3RS Project. All statutory EM&A requirements have been fulfilled in accordance with the EP, while a range of voluntary initiatives have been undertaken to further support marine ecology, fisheries resources and biodiversity enhancement. The completion of reclamation and marine works, together with the designation of the NLMP, provides a favourable foundation for the long-term recovery and conservation of marine habitats in the vicinity of HKIA.

24. Looking ahead, AAHK will continue to adopt a proactive and science-based approach in implementing environmental enhancement initiatives, including voluntary CWD monitoring until 2030 and the ongoing assessment of marine ecology and fisheries enhancement measures. Through these efforts, AAHK remains committed to supporting the sustainable operation of the 3RS while contributing to the long-term conservation of Hong Kong’s marine environment.

25. Members are invited to note the above.

Airport Authority Hong Kong
July 2026