

Local Vessels Advisory Committee

**Deployment of Artificial Reefs in the
Hong Kong International Airport Approach Area No. 3**

Purpose

Members are invited to note the Annex containing a paper issued by the Airport Authority Hong Kong concerning the captioned matter.

Marine Department
16 November 2023

LOCAL VESSELS ADVISORY COMMITTEE

Deployment of Artificial Reefs in the Hong Kong International Airport Approach Area No. 3

Purpose

1. This paper provides Members with relevant information on the proposed deployment of Artificial Reefs (ARs) in the Hong Kong International Airport Approach Area (HKIAAA) No. 3.

Background

2. The Environmental Impact Assessment (EIA) Report for the Expansion of Hong Kong International Airport (HKIA) into a Three-Runway System (the 3RS Project) was approved by the Director of Environmental Protection under the Environmental Impact Assessment Ordinance (Cap. 499) on 7 November 2014, with the Environmental Permit (Permit No. EP-489/2014) granted on the same day.

3. The EIA Report identified that the land formation for the 3RS Project would lead to the permanent loss of about 650 hectares of marine habitat. In this regard, the Airport Authority Hong Kong (AAHK) committed in the EIA Report for the 3RS Project to implement a number of mitigation measures intended to reduce the anticipated environmental impacts arising from the reclamation and marine works to acceptable levels. Among others, AAHK has formulated and implemented a Marine Ecology and Fisheries Enhancement Strategy (MEFES) comprising a number of measures and initiatives that are intended to enhance the marine environment for the benefit of marine ecology and fisheries resources in the vicinity of the 3RS Project area. One of the potential enhancement measures proposed in the MEFES is the deployment of ARs near the works area of the 3RS Project and/or within the boundary of the proposed North Lantau Marine Park. Besides, the Environmental Permit also stipulates in Condition 2.6(iii) that a study on the incorporation of deployment of ARs as an enhancement measure shall be part of the preparation works for the 3RS marine park designation, which shall be completed before the operation of the 3RS Project.

4. A feasibility study on AR deployment has since recommended deploying AR units within the HKIAAA No. 1 as a pilot test in order to better investigate and quantify the potential ecological values of ARs in Northwest Lantau waters. AAHK conducted the AR deployment pilot test in 2021 accordingly, where 100 AR units were deployed within the HKIAAA No. 1 occupying a collective total footprint of about 0.3 hectare. Positive ecological benefits have been quantified during the pilot test and AAHK is now planning to scale up this enhancement measure to provide increased benefit to marine habitats and ecological/fisheries resources in Northwest Lantau waters.

Scale-up of AR Deployment

5. AAHK proposes to deploy not more than 1,000 AR units with each unit measuring approximately one cubic metre in size. The deployed AR units would occupy a collective total footprint of not more than 2 hectares within the 25 hectares AR deployment location within the HKIAAA No. 3 as shown in **Annex 1**.

6. The ARs will be deployed about 300 metres away from existing shorelines measured from high water mark and in waters deeper than 4.5 metres below chart datum leaving sufficient clearance between the ARs and the water surface for safe marine navigation. The minimum vertical clearance (i.e. minimum water depth over the AR units) between top of AR units and sea level will be at least 4.5 metres having considered before and after settlement of AR units being laid on sea-bed. It is anticipated that positioning and deployment works will take approximately 4 months to complete, with regular ecological monitoring and engineering checks, including checking on the structural integrity, location and minimum water depth, of the AR units to be carried out during the subsequent 12-month maintenance period after deployment. The AR units will remain in place after deployment.

7. The proposed deployment location is within the restricted area of HKIAAA No. 3 where no vessel shall enter except with the permission of Director of Marine. In this connection, potential impact on existing marine users is considered minimal. Although the deployment of ARs may lead to potential impacts on marine water quality, these potential impacts are considered acceptable since any disturbance to the sea-bed is anticipated to be temporary in

nature with sediment disturbance expected to remain close to the sea-bed and localised in the immediate vicinity of AR units being deployed.

8. Regarding the proposed scale-up of AR deployment, AAHK has consulted green groups, professional and community liaison groups, fishermen liaison group, Advisory Council on the Environment (ACE) and relevant Government departments. No adverse comments were received.

Way Forward

9. This paper provides Members with information on the deployment of ARs in the HKIAAA No. 3. AAHK is proceeding with the statutory procedures for deployment of the ARs under the Foreshore and Sea-bed (Reclamations) Ordinance (FS(R)O) (Cap. 127). The ARs are planned to be deployed in the second half of 2024 after the notice of authorization is published under FS(R)O.

Airport Authority Hong Kong
November 2023

Location of Proposed Artificial Reef Deployment

