

LOCAL VESSELS ADVISORY COMMITTEE

Deployment of Artificial Reefs in the Hong Kong International Airport Approach Area No. 1

Purpose

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. 1.

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 3RS 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.

AR Deployment Pilot Test

5. AAHK proposes to deploy up to 500 AR units with each unit measuring approximately one cubic metre in size. The deployed AR units would occupy a collective total footprint of about 0.3 hectare within the 10.3 hectares AR deployment location within the HKIAAA No. 1 as shown in **Annex**.

6. The ARs will be deployed about 1,300 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 ecological monitoring and engineering checks, including checking on the structural integrity, location and minimum water depth, of the AR units on a regular basis after deployment. The AR units will remain in place after this pilot test.

7. The proposed deployment location is within the restricted area of HKIAAA No. 1 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 as well as marine ecological and fisheries resources, 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 3RS marine park and the associated enhancement measures including AR deployment pilot test, AAHK has consulted the Islands and Tuen Mun District Councils, Marine Parks Committee, academics, green groups, eco-tour operators, fisheries sector, 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. 1. 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 early 2021 after the notice of authorization is published under FS(R)O.

Airport Authority Hong Kong
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Location of Artificial Reef Deployment

Annex

