

## **COUNTRY AND MARINE PARKS BOARD**

### **Proposed Marine Park for the Expansion of Hong Kong International Airport into a Three-Runway System**

#### **1. Purpose**

1.1 This paper aims to update Members on the latest development and future work of the proposed marine park for the Expansion of Hong Kong International Airport into a Three-Runway System (3RS Project) and seek Members' comments on invoking the statutory procedures under the Marine Parks Ordinance, Cap. 476 (the Ordinance) for the designation of the proposed marine park.

#### **2. Background**

2.1 The Environmental Impact Assessment Report for the 3RS Project recommended establishing a new marine park as a mitigation measure for the habitat loss arising from the project. The proposed marine park will connect the existing Sha Chau and Lung Kwu Chau Marine Park and The Brothers Marine Park to form a large marine park matrix in North Lantau waters for the better protection of Chinese White Dolphin's important habitat and conservation of marine environment.

2.2 The Airport Authority Hong Kong (AAHK) consulted the Marine Parks Committee (MPC) of the Country and Marine Parks Board (CMPB) in October 2018, and other stakeholders between Q4 2018 and Q2 2020. AAHK further consulted MPC and the Advisory Council on the Environment (ACE) in July and September 2020 respectively. Both supported the designation of the proposed marine park.

#### **3. Proposed Marine Park Design and Management Plan**

3.1 Taking into account the views and concerns gathered during the stakeholder consultations, the design and management plan of the proposed marine park for the 3RS Project have been refined accordingly with details described in **Appendix 1**. The proposed extent and layout of the proposed marine park is in **Appendix 2**.

3.2 In line with the existing vision of marine parks in Hong Kong to protect and conserve the marine environment for the purposes of conservation, education, scientific research and recreation, the management plan would include the following:

- (a) zoning scheme;
- (b) marine ecological and fisheries enhancement measures;
- (c) fisheries management measures;
- (d) marine park administration;
- (e) public education and promotion; and
- (f) ecological and environmental monitoring.

#### **4. Procedures for Marine Park Designation**

4.1 Designation of the proposed marine park will involve statutory procedures under the Ordinance. Subject to the views of CMPB, the Country and Marine Parks Authority (the Authority) shall seek the direction of the Chief Executive in Council to prepare the draft map of the proposed marine park in accordance with Section 7(1) of the Ordinance. The Authority shall then follow the remaining statutory procedures for the designation of the proposed marine park with a view to tying in with the full operation of the 3RS Project targeted in 2024.

#### **5. Naming of the Proposed Marine Park**

5.1 For the purpose of preparing the draft map, it is recommended to name the proposed marine park as “North Lantau Marine Park”.

#### **6. Advice Sought**

6.1 Members are invited to comment and advise on the proposal to designate a marine park for the 3RS Project.

Country and Marine Parks Authority  
Agriculture, Fisheries and Conservation Department  
October 2020

**Design and Management Plan of the Proposed Marine Park for  
the Expansion of Hong Kong International Airport  
into a Three-Runway System**

**1. Purpose**

1.1 This document provides the details of the design and management plan of the proposed marine park to be taken forward by the Airport Authority Hong Kong (“AAHK”) in accordance with the Environmental Permit for the Three-Runway System (“3RS”) Project (EP-489/2014).

**2. Background**

2.1 The Environmental Impact Assessment Report for the 3RS Project recommended the establishment of a new marine park (“the proposed marine park”) of about 2,400 hectares as a mitigation measure for the permanent habitat loss arising from the project. The proposed marine park aims at protecting and conserving the marine environment around the Hong Kong International Airport (“HKIA”) from various anthropogenic threats.

2.2 The proposed marine park is designed to link the current Sha Chau and Lung Kwu Chau Marine Park (“SCLKCMP”), The Brothers Marine Park (“BMP”), as well as the existing and proposed Hong Kong International Airport Approach Areas (“HKIAAAs”), forming an interlinked water body in north Lantau waters that will provide synergistic effects for the conservation of marine ecology and fisheries resources. In addition, the proposed marine park will connect with the Pearl River Estuary Chinese White Dolphin National Nature Reserve (“PRECWDNNR”) immediately west of Hong Kong waters to facilitate movement of Chinese White Dolphins (“CWDs”) between habitats.

2.3 The Marine Park Proposal outlining the preliminary design and management plan of the proposed marine park was submitted to the Advisory Council on the Environment (“ACE”) for comment in December 2015 and subsequently approved by the Director of Environmental Protection in March 2016. Since then, AAHK has commenced a detailed study on the proposed marine park (“the Marine Park Study”). In October 2018, AAHK consulted the Marine Parks Committee (“MPC”) on the preliminary design of the proposed marine park and the stakeholder consultation plan.

**3. Stakeholder Consultations**

3.1 AAHK has consulted various relevant stakeholders, including relevant government bureaux / departments, Professional Liaison Group and Community Liaison Groups of the 3RS Project, the Marine Department's consultative / advisory committees, subsea utility owners / operators, ferry operators, Islands and Tuen Mun District Councils, fisheries sectors, green groups, academics, eco-tour operators, and relevant operation departments of HKIA, to solicit their views on the design and management plan for the proposed marine park. Key views and concerns raised by stakeholders were related to:

- (a) speed restriction within the proposed marine park, in particular for the high speed ferries travelling across the corridor between SCLKCMP and HKIA and ferries operating between Tuen Mun and Tung Chung. There were suggestions to maintain a navigation corridor without speed restriction in planning the proposed marine park;
- (b) effectiveness of the proposed marine park as a CWD conservation measure, and the associated monitoring mechanism to track the effectiveness of the proposed marine park;
- (c) management of commercial fishing within the proposed marine park;
- (d) marine traffic safety concern and integration of boundary buoys for marine parks due to the connection of the proposed marine park with SCLKCMP and BMP;
- (e) patrol and enforcement effort against cross-boundary illegal fishing activities in the proposed marine park;
- (f) potential interface with the operation and maintenance of existing and planned coastal facilities / infrastructure adjacent to the proposed marine park, including the Contaminated Sediment Disposal Facilities at East of Sha Chau ("CMP V"), subsea utilities, box culverts, as well as seawalls and breakwater adjoining the Hong Kong-Zhuhai-Macao Bridge Hong Kong Port and HKIA; and
- (g) execution of essential duties within the proposed marine park, such as routine firefighting training / drills, firefighting and sea rescue operation.

3.2. MPC and ACE have also been consulted in July and September 2020 respectively on the latest developments of the proposed marine park, and have expressed support on the designation of the proposed marine park. Members of MPC provided suggestions for protecting and enhancing the marine habitats for CWDs (e.g. enhancing fisheries resources) and members of ACE provided feedback on monitoring of the effectiveness of the proposed marine park.

3.3 Taking into account the views and concerns collected during the stakeholder consultations, the design and management plan of the proposed marine park have been refined accordingly with the details described in the following paragraphs.

#### **4. Design of the Proposed Marine Park**

4.1 As shown in **Appendix 2**, the proposed marine park is designed to connect with the two existing marine parks in Northwest Hong Kong waters, namely SCLKCMP and BMP, and with the PRECWDNNR immediately west of Hong Kong waters. The proposed marine park would be an effective CWD conservation measure by providing important connection to these core CWD habitats. In this regard, the suggestion to maintain a navigation corridor across the proposed marine park, either by physically dividing the marine park into two portions or waiving the 10 knot speed limit within a certain corridor inside the marine park, would substantially undermine the conservation value of the proposed marine park. This suggestion is therefore not considered further.

4.2 Having said that, in determining the extent of the proposed marine park, potential implications on marine uses have been considered. Specifically, the proposed marine park will not encroach upon the two existing principal fairways in West Hong Kong waters namely the Urmston Road Fairway and the Castle Peak Fairway.

4.3 Besides, without jeopardising the interconnectivity of the proposed marine park with the adjoining marine protected areas, i.e. SCLKCMP, BMP and PRECWDNNR, some refinements of the proposed marine park boundary were incorporated into the current design after considering the views from relevant stakeholders on future operation and maintenance needs of adjacent coastal facilities / infrastructure. These include local adjustment of about 25 metres of the northeastern boundary to avoid the encroachment upon the operating portion of CMP V; and local offsets of 50 metres from the neighbouring seawalls and breakwater.

4.4 The minor boundary refinements described in paragraph 4.3 above will not affect the interconnectivity of the proposed marine park with the adjoining marine protected areas and the total area of the proposed marine park will remain to be about 2,400 hectares.

#### **5. Management Plan of the Proposed Marine Park**

5.1 The proposed marine park will be managed and controlled in a similar manner as the existing marine parks in accordance with the Marine Parks Ordinance (“MPO”)

(Cap. 476). As the Authority under MPO, the Agriculture, Fisheries and Conservation Department (“AFCD”) will be responsible for the operation, management and law enforcement within the proposed marine park after its designation. Under the Marine Parks and Marine Reserves Regulation (Cap. 476A), vessels operating within marine parks are subject to a maximum speed limit of 10 knots.

5.2 A multi-pronged management plan has been further developed in the Marine Park Study. Proposed management measures include the provision of: (a) zoning scheme; (b) marine ecological and fisheries enhancement measures; (c) fisheries management measures; (d) marine park administration; (e) public education and promotion; and (f) ecological and environmental monitoring, which are described below:

- (a) **Zoning scheme:** The proposed marine park will connect with the adjacent BMP (about 970 hectares) and SCLKCMP (about 1,200 hectares) to form a larger marine park matrix (totalling about 4,570 hectares). Within BMP, a core area of about 80 hectares, where fishing activities are prohibited, has been established. For SCLKCMP, no new commercial fishing permits will be granted and existing permits will not be extended beyond end March 2022. Afterwards, the entire SCLKCMP will become a “no-fishing” area.

As shown in **Appendix 2**, the proposed marine park will also connect with the existing and proposed HKIAAAs, with an area of totalling about 670 hectares. Except with the permission of the Director of Marine, no vessels shall enter or pass through the existing and proposed HKIAAAs. Marine Department will proceed with a separate legislative amendment for the proposed HKIAAAs. As entry to HKIAAAs is restricted, they could be considered as a “no-fishing” area.

Altogether, the total “no-fishing” areas in SCLKCMP and BMP (about 1,280 hectares) and HKIAAAs (about 670 hectares) would be up to 1,950 hectares, which is equivalent to around 37% of the total area of the marine park matrix and HKIAAAs (5,240 hectares).

- (b) **Marine ecological and fisheries enhancement measures:** The following marine ecological and fisheries enhancement measures in the proposed marine park and / or the adjacent waters are being conducted / assessed by AAHK :
- eco-enhancement seawall design for the 3RS reclamation, which incorporates concrete seawall blocks and vertical seawall panels with rough surfaces to facilitate and promote colonisation of epifauna and to increase microhabitat complexity. The first batch of eco-seawall blocks have already been installed at the northern and eastern sections

of the seawalls of the 3RS land formation area. Ecological monitoring will be conducted after the seawall construction works has been substantially completed to assess the ecological value and effectiveness of the eco-seawall features; and

- the preparatory work for investigating the feasibilities of fish restocking and artificial reef deployment is continuing. AAHK completed the first phase of fish restocking pilot test in March 2020 with more than 8,000 black seabream, yellowfin seabream and green grouper fingerlings released. The pilot test aims to assess the potential value of fish restocking in enhancing the populations of the selected species in North Lantau waters. Pre- and post-release monitoring using a combination of methods, including cage-trapping, hand-lining, baited remote underwater video system and acoustic telemetry surveys, have been conducted to monitor the effectiveness of the fish restocking pilot test. The second phase of fish restocking pilot test is under planning by AAHK and is intended to build on the first phase findings. In addition, AAHK is progressing with an artificial reef deployment pilot test to evaluate the effectiveness of placing artificial reefs in the North Lantau marine environment and to quantify any ecological value. The pilot test is planned to commence in the first half of 2021, subject to the statutory authorisation under the Foreshore and Sea-bed (Reclamations) Ordinance (Cap. 127). AAHK will conduct relevant monitoring for the deployed artificial reef and is considering a further pilot trial on fish restocking upon deployment of the artificial reefs. Subject to the results of the pilot tests, further fish restocking exercises and/or artificial reefs deployment would be implemented by AAHK.

- (c) **Fisheries management measures:** Under the Marine Parks and Marine Reserves (Amendment) Regulation 2019, fishing vessels registered under the Fisheries Protection Ordinance (Cap. 171) will be allowed to fish commercially within the proposed marine park through the marine park fishing permit system (with appropriate conditions) managed by AFCD.

With respect to stakeholders' concern about enforcement against illegal fishing, AFCD will conduct regular and targeted patrols within the proposed marine park. Joint operations will be conducted by AFCD with the Marine Police and the Marine Department as and when appropriate. AFCD will also maintain close liaison and exchange intelligence with the relevant Mainland fisheries authorities to jointly combat illegal cross-border fishing activities.

- (d) **Marine Park Administration:** Boundary buoys will be used to clearly demarcate the proposed marine park boundary for management and law

enforcement purposes. With respect to stakeholders' concern about marine traffic safety and consolidation of boundary buoys for marine parks, AAHK will investigate the feasibility of using a combination of physical and non-physical boundary buoys for the proposed marine park as well as to liaise with the relevant authorities on the likely consolidation of the boundary buoys with those of the two adjoining marine parks, i.e. SCLKCMP and BMP.

In line with the practices of other existing marine parks in Hong Kong, the execution of essential duties, such as firefighting drills / operations, and emergency repair works for subsea utilities within the proposed marine park should not be affected. These activities will be handled via the existing protocols.

- (e) **Public education and promotion:** To promote public education and awareness of marine environment protection, AAHK will explore using different forms of educational materials (such as e-leaflets, exhibition boards and booths). Short-term exhibitions at HKIA on issues such as CWD conservation will be considered. Other activities such as eco-tours, eco-guide trainings and publicity programmes will also be encouraged.
- (f) **Ecological and environmental monitoring:** AAHK is committed to CWD monitoring covering Northeast Lantau and Northwest Lantau waters for six years following the designation of the proposed marine park with a view to evaluating the effectiveness of the proposed marine park on CWD conservation. Also, should the proposed artificial reef deployment and fish restocking as described in part (b) above be implemented, relevant monitoring would also be conducted to evaluate their effectiveness.

5.3 AAHK will continue to work together with AFCD in the preparation for the designation of the proposed marine park. A Liaison Group involving AAHK and AFCD is proposed to facilitate direct and ongoing liaison on the future management of the proposed marine park.

## 6. Way Forward

6.1 Subject to Members' comments, AAHK will proceed to finalise the design and management plan of the proposed marine park.

**Airport Authority Hong Kong**

**October 2020**



### Extent and layout of the proposed marine park

