

## **COUNTRY AND MARINE PARKS BOARD**

### **The Proposal to designate the Brothers Marine Park**

#### **1. Purpose**

1.1 This paper aims to update Members on the latest development and future work of the designation of the proposed marine park in the Brothers as initiated by the Highways Department.

#### **2. Background**

2.1 In October 2009, the Advisory Council on the Environment (ACE) considered and endorsed with conditions the Environmental Impact Assessment (EIA) reports related to the Hong Kong-Zhuhai-Macao Bridge (HZMB). In compliance with the EIA reports and Environmental Permit (EP) conditions set out for the operation and construction of the Hong Kong Boundary Crossing Facilities Project, Highways Department (HyD), as the project proponent is required to designate a new marine park in the vicinity of the Brothers for the conservation of Chinese White Dolphins and enhancement of marine resources in consultation with the Agriculture, Fisheries and Conservation Department (AFCD).

2.2 HyD had carried out two rounds of consultancy studies in 2009 and 2013 to review and update the boundary and management plan for the BMP following the approval of the subject EIA reports. A separate fish resources study was also conducted in 2012 to update the fisheries profile around the Brothers. While HyD is the managing department of the Study, a Steering Committee with representatives from Marine Department, Civil Engineering and Development

Department and AFCD was formed in 2013 to steer the Study. AFCD has been providing advice to this Committee in respect of the planning, preparation and statutory procedures involved in the designation of a marine park.

2.3 The public consultation exercise for BMP was conducted in two stages in 1<sup>st</sup> quarter of 2014 and 1<sup>st</sup> quarter of 2015 respectively to collect views for major stakeholders on the proposed boundary, management plan, and ecological and fisheries enhancement plan of the proposed BMP. The Marine Parks Committee (MPC) was consulted in 25 March 2014 and 17 March 2015 with members' general support on the proposed BMP. The views/ comments received from the two stages of public consultation have been consolidated and used to finalise the proposal of the BMP. An information paper was prepared by HyD to summarize the key features of the revised proposal and the subsequent plan for designation of the BMP. For details, please refer to the Annex. Representatives of HyD and its consultants would present the proposal shortly.

### **3. The Proposed Boundary and Management Plan of the BMP**

3.1 The proposed boundary of BMP is established based on a systematic and scientific dolphin habitat rating system approach which assesses the important CWD habitats around the Brothers. The CWD habitat ratings are shown in **Figure 1** of the **Annex**. The area of the revised boundary of BMP has increased from its preliminary area of 850 ha to about 970 ha.

3.2 The proposed management plan of BMP is similar to the management plans for the other existing marine parks in Hong Kong. Core Area and Anchoring Areas are proposed in the BMP as shown in **Figure 2** of the **Annex**. The

maximum allowable speed limit of vessels within BMP will be 10 knots in accordance with Cap. 476A. As set out in the Environmental Permit, 10,800 m<sup>3</sup> of Artificial Reefs (ARs) shall be deployed within BMP as one of the ecological and fisheries compensation and enhancement measures. Restocking of fish fry/ juvenile fish is also proposed to improve the fisheries resources of the area. Similar to other marine parks, AFCD will issue fishing permits to eligible fishermen allowing them to continue fishing in the BMP (except for the core area) after its designation. Various facilities, such as boundary buoys, information boards and warning signs, will be set up to guide visitors and other park users. For law enforcement, AFCD will run a patrol team to enforce the regulations of Cap 476. Environmental monitoring and education programme will also be carried out.

#### **4. Way Forward**

4.1 Having consulted the stakeholders, the Government is now seeking comments from the Members of the CMPB on the proposed designation of BMP. Subject to the views of CMPB, the Authority (i.e. D of AFC) shall seek the direction of the Chief Executive in Council to prepare a draft map of the BMP in accordance with Section 7 (1) of the Marine Parks Ordinance (Cap. 476) in July/August 2015. It is expected the Authority would, in consultation of the CMPB, prepare a draft map in accordance with Section 7(4) of Cap 476 in October 2015 for gazetting the BMP by the end of the 2015. If there is any objection to the draft maps, the CMPB would conduct hearings. Afterwards, the Authority would submit the draft maps together with the objections to the Chief Executive in Council for consideration with an aim to completing the statutory procedures for designation by end of 2016. HyD would provide all necessary assistance to AFCD during the process of the marine park designation.

**5. Advice Sought**

5.1 Members of the CMPB are invited to offer their comments and support on the proposal of the BMP.

Country and Marine Parks Authority  
Agriculture, Fisheries and Conservation Department  
May 2015

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## COUNTRY AND MARINE PARKS BOARD

### The Proposal to designate the Brothers Marine Park

#### 1. Purpose

- 1.1 This Paper is to brief and seek the support from Members of the Country and Marine Parks Board on the proposed boundary and management plan of “the Brothers Marine Park” (BMP), and the subsequent designation of the BMP.

#### 2. Background

- 2.1 In October 2009, the Advisory Council on the Environment (ACE) considered and endorsed with conditions the Environmental Impact Assessment (EIA) reports for the Hong Kong-Zhuhai-Macao Bridge (HZMB) related Hong Kong projects. In compliance with the EIA report and Environmental Permit (EP) conditions for the operation and construction of the HZMB’s Hong Kong Boundary Crossing Facilities (HKBCF) Project, Highways Department (HyD) as the project proponent is required to designate a new marine park in the areas vicinity to the Brothers for the conservation of Chinese White Dolphins (CWD) and enhancement of marine resources, tentatively in the end of 2016.
- 2.2 The preliminary extent of the BMP had been established in 2011. Subsequently, HyD commenced the Detailed Study to establish the boundary and management plan for the BMP in August 2013.

#### 3. Public Consultation of the Proposed Marine Park

- 3.1 Two stages of public consultation have been carried in the 1<sup>st</sup> quarter of 2014 and 1<sup>st</sup> quarter of 2015 respectively and the consulted parties are listed in **Table 1** including fishermen organisations, marine operators, green groups, eco-tour operators, relevant District Councils, the Marine Parks Committee (MPC) of the Country and Marine Parks Board (CMPB) and the Capture Fisheries Subcommittee (CFS) of the Advisory Committee on Agriculture and Fisheries (ACAF). The views/ comments received from the two stages of public consultation have been consolidated and used to finalise the proposal of the BMP.
- 3.2 Stage 1 Public Consultation was conducted in the first quarter of 2014 to consult stakeholders on the designation and preliminary boundary of the BMP. There were general supports from the stakeholders on the designation of the BMP. Key comments raised during the public consultation related to the boundary and

management plan of the BMP, compatibility of inclusion of the existing anchoring areas within BMP as well as ecological and fisheries enhancement measures. Comments received during the Stage 1 Public Consultation were reviewed and used to revise the preliminary boundary and design the management plan of the BMP.

3.3 Stage 2 Public Consultation was conducted in the first quarter of 2015 to consult stakeholders on the revised boundary and management plan of the BMP. Key comments received are as follows:

- (a) The MPC of the CMPB, Green Groups, Eco-tour Organisers and Tuen Mun District Council supported the proposal of the BMP and agreed that the proposed BMP would be important to properly protect the CWD. Tsuen Wan District Council accepted the proposed BMP but requested the Agriculture, Fisheries and Conservation Department (AFCD) to further enhance the issuance and management of fishing permits for marine parks.
- (b) Majority of the Fishermen Organizations generally accepted that the BMP proposal would be beneficial to enhance the marine resources. The CFS of the ACAF and some fishermen had reservation on the proposed BMP and viewed that the proposed BMP would diminish the fishing grounds in the western waters and hence affect the fishermen's livelihood. They also requested the Government to review the transferability and inheritability of fishing permit for marine parks.
- (c) Marine operators generally accepted the BMP proposal and requested the Government to retain the existing Sham Shui Kok Anchorages (SSKAs) at their original location and maintain their function to support maritime and logistic activities in the northwestern waters of Hong Kong.
- (d) A few individual members of the Islands District Council had strong reservation on the proposed BMP and viewed that the current fishing activities of the villagers of the Sam Heung (Pak Mong, Ngau Kwu Long and Tai Ho San Tusen) would be affected by the proposed BMP and therefore affect their livelihood. In addition, individual members of the Islands District Council requested the Government to widen the proposed navigation corridor at the southeastern boundary of the BMP and also consult the fishermen at Mui Wo.

#### **4. Measures/ Following Up Actions to Address the Concerns of the Stakeholders**

##### **4.1 Addressing the Concern about Diminishing Fishing Ground in Western Waters and Fishing Permit Issue**

- (a) The proposed area of the BMP is about 970 ha and in which only the Core Area of the BMP of about 80 ha will be prohibited from fishing. The proposed Core Area will overlap with the existing Hong Kong International Airport Approach Area (HKIAAA) No. 4 (50 ha) and the southern HKIAAA No. 6 (30 ha). Under the Shipping and Port Control Regulations (Cap. 313A) and Merchant Shipping (Local Vessels) (General) Regulation (Cap. 548F), no vessel is allowed to enter HKIAAA No. 4 except with permit and no vessels of a height exceeding 15 m above sea level are allowed to enter HKIAAA No. 6. Therefore, 50 ha of the Core Area of the existing Hong Kong International Airport Approach Area (HKIAAA) No. 4 is already prohibited vessels from entry except with permission by the Director of Marine. The actual increase in the fishing prohibition zone is only about 30 ha of the southern HKIAAA No. 6 (i.e. about 3% of the proposed BMP) and considers acceptable. In addition, fishermen could apply permit from the Authority<sup>1</sup> (i.e. the Director of Agriculture, Fisheries and Conservation (D of AFC)) to fish in the BMP (except for the core area) subject to the fulfilment of the eligibility criteria.
- (b) In the Stage 2 Public Consultation, AFCD had clearly explained to the concerned fishermen that according to the Marine Parks and Marine Reserves Regulation (Cap. 476A), the Authority may, at his discretion, grant a permit for fishing to a bona fide fisherman or to a person who ordinarily resides near a marine park to which the permit relates. Therefore, the permit system allows the eligible fishermen to continue fishing within the marine park. With regards to the request on relaxation of the marine park fishing permits, AFCD is taking steps to enhance the fishing permit system for marine parks in consultation with the Fishing Permit Working Group and Marine Parks Committee.

#### 4.2 Retaining Sham Shui Kok Anchorages (SSKAs)

The Government proposes to zone the SSKAs as “Anchoring Areas” in the BMP according to the Cap. 476A. Anchoring in the SSKAs will be allowed without the need to apply for permission from the Authority. However, as stipulated in the Cap. 476A, marine operators will need to apply a permit for carrying out commercial activities from the Authority in order to carry out mid-stream operation (loading / unloading/ transshipment of cargoes) within the SSKAs. With a view to facilitating the mid-stream operations, AFCD will explore measures to streamline the application procedures of the permit for commercial activities.

#### 4.3 Addressing Islands District Council Concerns

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<sup>1</sup> According to the Section 3 of the Cap. 476 ( Marine Parks Ordinance), The Director of Agriculture, Fisheries and Conservation shall be the Authority.

- (a) In response to the concerns of some of the individual members of the Islands District Council, the Government met the representatives of the Sam Heung villagers and Mui Wo Fishermen on 19 Mar 2015 and 13 May 2015 respectively and explained to them the proposal of the BMP and the current mechanism of issuing fishing permit for marine parks to the eligible fishermen as stipulated in Cap 476A. In addition, the Government has explained to the Sam Heung villagers that the proposed marine park was at a considerable distance from shore and impact to villagers would be minimal. On the request of issuing fishing permit to the Sam Heung villagers and Mui Wo fishermen allowing them fishing in BMP after its designation, more information from the fishermen/ villagers would be gathered for the consideration of the Fishing Permit Working Group if necessary.
- (b) In response to the suggestion of Islands District Council, the Government has been reviewing the feasibility of making minor adjustment to the proposed navigation corridor outside the southeastern boundary of the BMP without compromising the function of BMP for protection of CWD.

## 5. The Proposed Boundary of The BMP

- 5.1 The proposed boundary of BMP is established based on a systematic and scientific dolphin habitat rating system approach which assesses the important CWD habitats around the Brothers. The CWD habitat ratings are shown in **Figure 1**. Grids with habitat rating exceeding 20 (rated “above average”) are recommended to be included in the proposed BMP. The area of the revised boundary of BMP has increased from its preliminary area of 850 ha to about 970 ha. The revisions to the boundary of BMP are elaborated in the following paragraphs 5.2 to 5.4.
- 5.2 The **northern boundary** of the BMP remains to be clear from Urmston Road and generally aligns with the seabed contour of -10m Chart Datum.
- 5.3 The water areas just off the shore of Siu Ho Wan (SHW) has been recommended by the ACE to be included into the boundary of BMP in 2011, and this proposed expansion of BMP has also been demanded by the green groups during the 2014 Stage 1 Public Consultation for sufficient protection and conservation of CWD. In the Detailed Study, the updated CWD habitat index in these water areas is also re-affirmed to be high. In view of these, the **southern boundary** of the BMP is proposed to be extended closer to the shoreline of SHW. In addition, in response to the suggestion of marine operators, the **southeastern boundary** of the BMP is offset 150 m from the shoreline as a navigation corridor.



- 5.4 The **western boundary** of the BMP will be offset 150 m from the seawall of HKBCF for navigation corridor in response to the requests of the marine operators. On the other hand, the offset area could avoid the BMP encroaching upon the works area of HZMB Tuen Mun – Chek Lap Kok Link (TM-CLKL) Southern Landfall construction.

## **6. Proposed Management Plan of The BMP**

### **6.1 Zoning Scheme**

The proposed management plan of BMP is similar to the management plans for the existing marine parks in Hong Kong. Core Area and Anchoring Areas are proposed in the BMP as shown in **Figure 2**. The maximum speed limit of vessels within BMP will be 10 knots in accordance with Cap. 476A.

#### **(a) Core Area**

Core Area will be designated to provide the highest level of protection to CWD's prey sources and fisheries resources therein. Fishing activities will not be permitted within the core area, including those who possess marine park fishing permits. According to the recent fish resources survey completed for this project, the waters around Siu Mo To supports relatively high abundance and biomass of fish resources, and demonstrates the need to offer protection to the area. This area will be zoned as Core Area, in the purposes of enhancing fish resources and rehabilitating fish stocks so as to provide overall beneficial effects to the ecosystem.

#### **(b) Anchoring Areas**

The SSKAs No. 1 and 2, which are two existing "Service Anchorages" in the Western waters, will be zoned as "Anchoring Areas" in the BMP. Anchoring in the SSKAs will be allowed without the need to apply for permission from the Authority. Marine operators will need to observe and comply with the relevant Cap. 476A, such as, no person shall collect any marine life and resources in/from a marine park, and shall not pollute water of a marine park in any way. Hence, in-taking of sea water as ballast water within the SSKAs shall be prohibited and shipboard operations shall not cause any water pollution to the BMP. Marine operators will also need to apply a permit for carrying out commercial activities from the Authority (D of AFC) for loading/ unloading/ transshipment of cargoes.

### **6.2 Marine Ecological Enhancement Measures**

#### **(a) Deployment of Artificial Reefs**

According to the EP set out for the operation and construction of the HKBCF Project, 10,800 m<sup>3</sup> of Artificial Reefs (ARs) shall be deployed within BMP as

one of the ecological and fisheries compensation and enhancement measures. ARs in general provide food and shelter for adult and juvenile fishes; enhance complexity of marine habitat and marine biodiversity. ARs will be deployed to enhance primarily on fisheries resources in the BMP. The ARs will be deployed within the Core Area to complement with the vessel entry restrictions already imposed on HKIAAAA Nos. 4 and 6. A minimum water depth of 4.5 m below Chart Datum will be maintained over the ARs.

**(b) Release of Fish Fry**

Fish restocking within the Core Area in the form release of fish fry/ juvenile fish is also proposed to improve fish stocks of the area.

**6.3 Fishing Control**

Similar to other marine parks, fishing activities will be under control at the BMP after its designation. AFCD will issue fishing permits to eligible fishermen allowing them to continue fishing in the marine park (except for the core area).

**6.4 Patrol and Surveillance**

Various facilities, such as boundary buoys, information boards and warning signs, will be set up to guide tourists and other park users of the BMP. For law enforcement, AFCD will set up a patrol team to enforce the regulations as stipulated in the Marine Parks Ordinance Cap. 476 and the Marine Parks and Marine Reserves Regulation Cap. 476A.

**6.5 Environmental Monitoring and Education Programme**

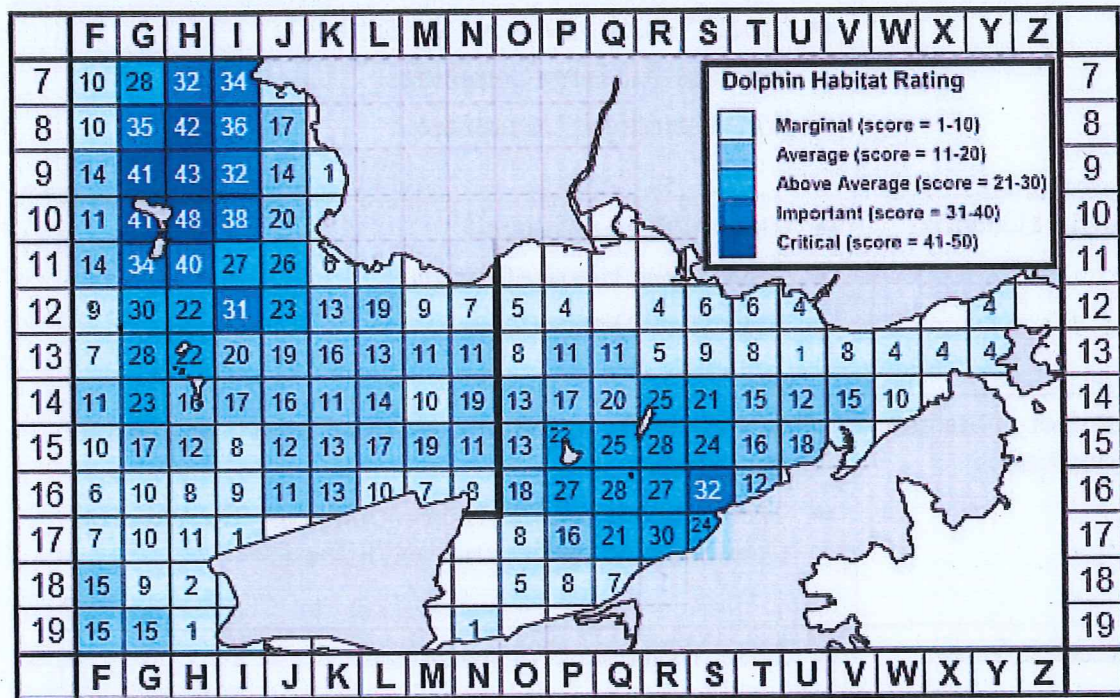
Ecological and water quality monitoring will be carried out to monitor the marine resources within the BMP. In addition, AFCD will regularly organise education programmes and produce publications in promoting the BMP. This will provide opportunities for local communities to enhance their understanding on the conservation of marine environment and marine parks in Hong Kong.

**Table 1****Stakeholders consulted in Public Consultations**

<b>Group</b>	<b>Consulted Parties</b>
Marine Operators	<ul style="list-style-type: none"> <li>• High Speed Craft Consultative Committee</li> <li>• Local Vessels Advisory Committee</li> <li>• Pilotage Advisory Committee</li> <li>• Port Operations Committee</li> </ul>
District Councils	<ul style="list-style-type: none"> <li>• Islands District Council</li> <li>• Tsuen Wan District Council</li> <li>• Tuen Mun District Council</li> </ul>
Advisory / Statutory Committees	<ul style="list-style-type: none"> <li>• Marine Parks Committee of the Country and Marine Parks Board</li> <li>• The Capture Fisheries Subcommittee of The Advisory Committee on Agriculture and Fisheries</li> </ul>
Fisheries Sector	<ul style="list-style-type: none"> <li>• Major fishermen's organisations</li> </ul>
Others	<ul style="list-style-type: none"> <li>• Green groups</li> <li>• Eco-tour organisers</li> <li>• Academics</li> <li>• Villages of Sam Heung (i.e. Pak Mong, Ngau Kwu Long and Tai Ho)</li> </ul>

Figure 1

Habitat Rating of Chinese White Dolphins in Hong Kong using quantitative habitat use information collected during 2001-12 (number within grids represents the sum of score totalled from the selection criteria)



**Evaluation Criteria:**

- Overall dolphin densities
- Densities of feeding and socialising activities
- Densities of young calves
- The frequency of dolphin usage
- The intensity of usage by individual dolphin as their core areas

Figure 2

**Proposed Boundary and Management Plan of The Proposed Brothers Marine Park**

