

9. Fisheries Impact Assessment

9.1 Introduction

With reference to **Chapter 2**, there are three Re provisioning Options, namely Option A, Option B, and Option C, that are being considered for the Project. This section presents an assessment to identify any adverse fisheries impacts associated with the carrying out of the Project under all the re provisioning options, in accordance with the technical requirements stated in Section 3.4.9 of the EIA Study Brief.

9.2 Environmental Legislation, Standards and Guidelines

The environmental legislations, standards and guidelines below are relevant to the fisheries impact assessment for this Project.

- Environmental Impact Assessment Ordinance – Technical Memorandum (EIAO-TM), Annexes 9 and 17. Annex 9 recommends the criteria that are to be used for evaluating fisheries impacts. Annex 17 prescribes the general approach and methodology for the assessment of fisheries impacts arising from a project or proposal, to allow a complete and objective identification, prediction and evaluation of the potential impacts.
- Fisheries Protection Ordinance (Cap. 171). This Ordinance provides regulations for the conservation of fish and other aquatic life and regulates fishing practices.
- Marine Fish Culture Ordinance (Cap. 353). This Ordinance regulates and protects marine fish culture and other related activities.
- Water Pollution Control Ordinance (WPCO) (Cap. 358). This Ordinance sets limits to water quality parameters in fish culture zones.

9.3 Fisheries Environment

It is identified that no fish pond is present within the Project site or in the vicinity, and no marine fish culture zone is present within the Victoria Harbour Phase Three Water Control Zone. Only capture fisheries activities are recorded at the offshore water of Kennedy Town which is described below.

9.3.1 Latest status of Capture Fisheries

In 2013, the estimated fisheries production of Hong Kong from capture fisheries in waters both inside and outside Hong Kong amounted to 170,129 tonnes, valued at HK\$2,338 million¹. Within Hong Kong waters, the highest yields for local fisheries within Hong Kong waters were mainly derived from the eastern and north-eastern coasts.

Commercial fish species reproduce throughout the year, although spawning for the majority of species is concentrated during the period from June to September. The findings of a literature review conducted for

¹ AFCD (2014). *Capture Fisheries*. Retrieved May 27, 2014, from http://www.afcd.gov.hk/english/fisheries/fish_cap/fish_cap_latest/fish_cap_latest.html (Last Revision Date: 21 March 2014)

AFCD² have determined that the marine waters within the Victoria Harbour were not identified as a nursery or spawning ground for commercial fisheries.

9.3.2 Trawling Ban in Hong Kong Waters

The Legislative Council has passed the legislative amendments to ban trawling (including pair, stern, shrimp and hang trawling) in Hong Kong waters with the aim of protecting the marine resources and ecosystem. The trawling ban has been in effect since 31 December 2012.

9.3.3 Findings from Port Survey 2006 in the offshore water of Kennedy Town

The relevant data related to the offshore water of Kennedy Town was extracted from the Port Survey conducted in 2006³. In the survey, a uniform grid of 720ha cell size overlaid on Hong Kong waters and the fisheries related information (e.g. production, vessel number and catch value) was presented in the form of categories.

Fisheries Production

The Port Survey results showed that the offshore water of Kennedy Town had very low fish production (>0 and ≤ 50 kg/ha), as presented in **Figure 9.1**. The highest range of fisheries production in Hong Kong (i.e. 600–1000kg/ha) was recorded near Po Toi, Ninepin Group and Tap Mun. The top 10 families captured in Hong Kong were Scad (Carangidae), Shrimp, Rabbitfish (Siganidae), Squid, Croaker (Sciaenidae), Crab, Mullet (Mugilidae), Sardine (Clupeidae), Seabream (Sparidae) and Anchovy (Engraulidae).

Among the 10 families of major fisheries production in Hong Kong during 2006, the most abundant species at the offshore water of Kennedy Town was Rabbitfish (Siganidae) with production of 20–40kg/ha. Other families captured with production of ≤5kg/ha included Shrimp, Squid, Croaker (Sciaenidae), Crab, Mullet (Mugilidae), Sardine (Clupeidae) and Seabream (Sparidae). There was no fish fry production recorded at the offshore water of Kennedy Town, as shown in **Figure 9.2**.

Fishing Operations

The Port Survey results showed that at the offshore water of Kennedy Town the number of fishing vessels under operation was at the range of 50–100 vessels, as presented in **Figure 9.3**. They included shrimp trawler, gill netter, hand liner, miscellaneous craft and sampan. All of them were less than 15m in length. Sampan was the dominant type with 10–50 vessels operating around the Project area. Other vessel types were of low numbers, with no more than 10 vessels for each of them. In terms of production, all the five types of fishing vessels at the offshore water of Kennedy Town had low fisheries production with not more than 50kg/ha.

² ERM. (1998). *Fisheries Resources and Fishing Operations in Hong Kong Waters*. Submitted to Agriculture, Fisheries and Conservation Department.

³ AFCD (2014). *Capture Fisheries*. Retrieved May 27, 2014, from http://www.afcd.gov.hk/english/fisheries/fish_cap/fish_cap_latest/fish_cap_latest.html (Last Revision Date: 21 March 2014)

9.4 Identification and Evaluation of Fisheries Impact

No potential adverse fisheries impact is identified resulting from the Project as no marine works or potential adverse deterioration of marine water quality is predicted for all the three Re-provisioning Options.

Re-provisioning Option A/B/C does not involve any seabed, foreshores, or fish ponds, or any direct or indirect discharge of any kind of pollutants into the marine waters. The Project will not affect any fishing or aquaculture activities, fisheries resources or habitats, or aquaculture sites. In view of above and referring to Annex 17 of the EIAO-TM, fisheries impact assessment is deemed not necessary for the Project.

9.5 Mitigation of Fisheries Impact

As there is no potential adverse fisheries impact, no fisheries-specific mitigation measure is considered necessary.

9.6 Cumulative Impact

One of the planned concurrent and interfacing projects identified for the Project, “Re-provisioning of Kennedy Town Saltwater Pumping Station”, may involve marine works for construction of the relocated saltwater intake. Although no information regarding the programme or construction methods for this project are available (as described in **Section 2.7** of this report), it is anticipated that there will not be any major impact on fisheries or potentially adverse deterioration of marine water quality. Therefore, no cumulative impact on fisheries is identified.

9.7 Environmental Monitoring and Audit

No specific fisheries mitigation measure is required. Therefore, no monitoring and audit programme on fisheries aspect is considered necessary.

9.8 Residual Impact

Given that no significant fisheries impact is anticipated for the Project, no residual impact is identified.

9.9 Summary

Evaluation of fisheries impact addressed has confirmed there is no adverse fisheries impact resulting from the Project under the three assessed Re-provisioning Options. According to EIAO-TM and clause 3.4.9.1 of the EIA Study Brief, no fisheries impact assessment is deemed necessary for the Project.