

1 Introduction

- 1.0.1 The consultancy study on the Review and Development of Marine Water Quality Objectives (WQOs) was initiated in October 2008, and we have completed an initial review about the existing WQOs, conditions of our marine environment, and overseas practices.
- 1.0.2 This WQO review is important in a number of aspects such as beneficial uses of marine waters, marine water quality management, marine conservation, coastal development, environmental impact assessment, and pollution control in Hong Kong. We would like to hear your views and concerns at this early stage, so as to identify a set of WQOs appropriate for Hong Kong in the decades to come.
- 1.0.3 The objective, need and initial issues of the WQO review have been outlined in the “First Stage Public Engagement Document”. The purpose of this Technical Note is to provide more in-depth technical details about the initial review.

2 Characterization of marine waters in Hong Kong

- 2.0.1 Based on the fundamental differences in hydrographic conditions along the estuarine-oceanic transition gradient, water circulation, water depth, the bathymetric condition, potential pollution sources levels of contaminants, the major delineation of marine biota and the occurrence of various sensitive receivers, it is considered useful to divide the waters of Hong Kong into 7 water bodies (Figure 2.1). The following provides a narrative summary on the beneficial uses and sensitive receivers; physical, chemical and biological characteristics of these 7 water bodies.

2.1 Beneficial uses and sensitive receivers

- 2.1.1 Typical beneficial uses and sensitive receivers in our marine waters are summarized below and Table 2.1. Their distributions are shown in Figure 2.2:
- (a) Sites of special scientific interest (SSSI),
 - (b) Sites/species of high conservation values (e.g., corals, seagrass, mangroves and marine mammals)
 - (c) Marine parks and marine reserve
 - (d) Nursery and spawning grounds
 - (e) Mariculture zones and oyster culture grounds
 - (f) Habitats of ecologically important species (e.g., keystone species)
 - (g) Bathing beaches and secondary contact recreation
 - (h) Seawater intakes for flushing and cooling
 - (i) Navigation
 - (j) Effluent disposal
 - (k) Spoil disposal, and marine fill borrowing